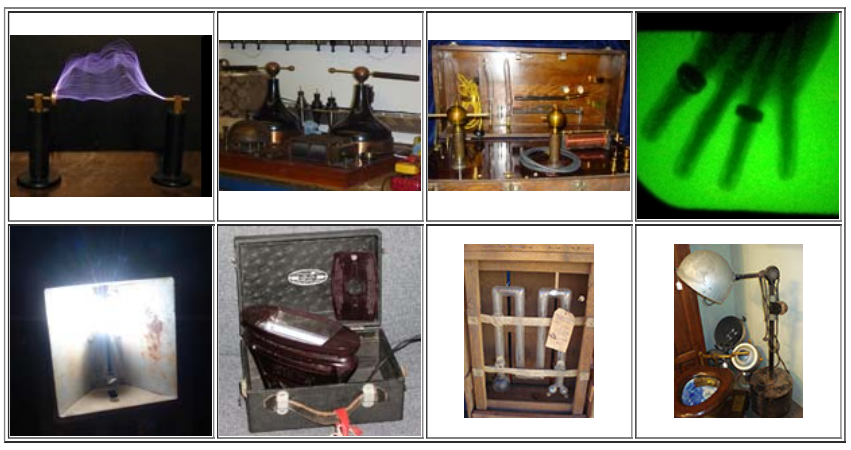


"I was working with a Crookes tube covered by a shield of black cardboard. A piece of barium platino-cyanide paper lay on the bench there. I had been passing a current through the tube, and I noticed a peculiar black line across the paper. ...
The effect was one which could only be produced in ordinary parlance by the passage of light. No light could come from the tube because the shield which covered it was impervious to any light known even that of the electric arc...
I did not think I investigated...I assumed that the effect must have come from the tube since its character indicated that it could come from nowhere else. It seemed at first a new kind of invisible light. It was clearly something new, something unrecorded... There is much to do, and I am busy, very busy."
Wilhelm Konrad Röntgen, Discoverer of the X-Ray

"In July 1893, I proposed a new treatment for small-pox, which consists in placing the patients in rooms from which the chemical rays of the solar system are excluded by interposing red glass or thick red cloth. The result of this method of treatment is that the vesicles as a rule do not enter upon the stage of suppuration, and that the patients get well with no scars at all, or most with extremely slight scarring...this influence, which is not confined to variola, depends upon a principle which will, perhaps, find its practical application in other exanthematous and cutaneous affections...the so-called chemical rays, placed in the blue and violet, and especially the ultra-violet parts of the spectrum are the most refrangible; the chemical effect is here at the maximum, the heating effect at the minimum. "
Niels Reyn Finsen, Pioneer in Phototherapy

"The Realms Beyond The Senses, The Reality Of The Unseen..."
Dr. Frederick Finch Strong

" When we look at the world around us, on Nature, we are impressed with its beauty and grandeur. Each thing we perceive, though it may be vanishingly small, is in itself a world, that is, like the whole of the universe, matter and force governed by law,—a world, the contemplation of which fills us with feelings of wonder and irresistibly urges us to ceaseless thought and inquiry. But in all this vast world, of all objects our senses reveal to us, the most marvelous, the most appealing to our imagination, appears no doubt a highly developed organism, a thinking being. If there is anything fitted to make us admire Nature's handiwork, it is certainly this inconceivable structure, which performs its innumerable motions of obedience to external influence. To understand its workings, to get a deeper insight into this Nature's masterpiece, has ever been for thinkers a fascinating aim, and after many centuries of arduous research men have arrived at a fair understanding of the functions of its organs and senses..."
Nikola Tesla, On Light And Other High Frequency Phenomena

RAYS

My interest in rays started in 1995 when I began experimenting with vacuums and Tesla Coils. I noticed a peculiar yellow-green glow in some tubes that captivated my attention. After some years, I learned that this glow was caused by X-Rays. It is now 25 years later. I spent my whole life studying "Rays" of different kinds, from visible light to X-Rays, Ultraviolet rays, Gamma Rays. I had the unique privilege of studying electrical discharges that were unique to my laboratory and few others over time, outside of Kinraide and Tesla. Now in the later part of life I am devoting my time to the ultraviolet spectrum of the farthest reaches. I believe I am pioneering this kind of work with regard to the unique spectrums I am producing, and expect like Schumann, Lyman, Kinraide, Strong, and others - it will probably occupy my life and work until the end. The unknown is a beautiful things to be immersed in... Jeff Behary.

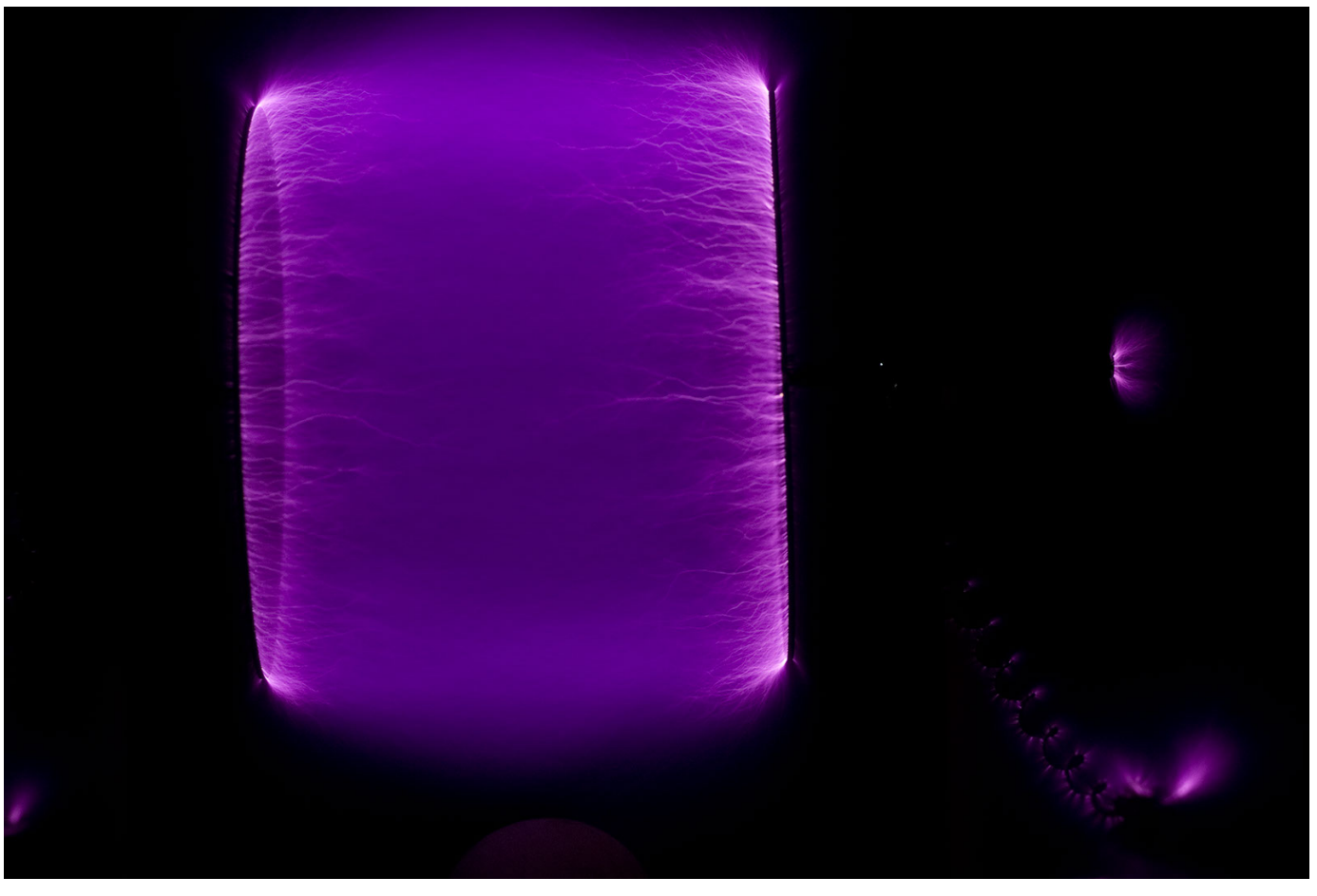
Endless reading and experimentation are the keys to understanding obscure topics such as invisible "rays"...

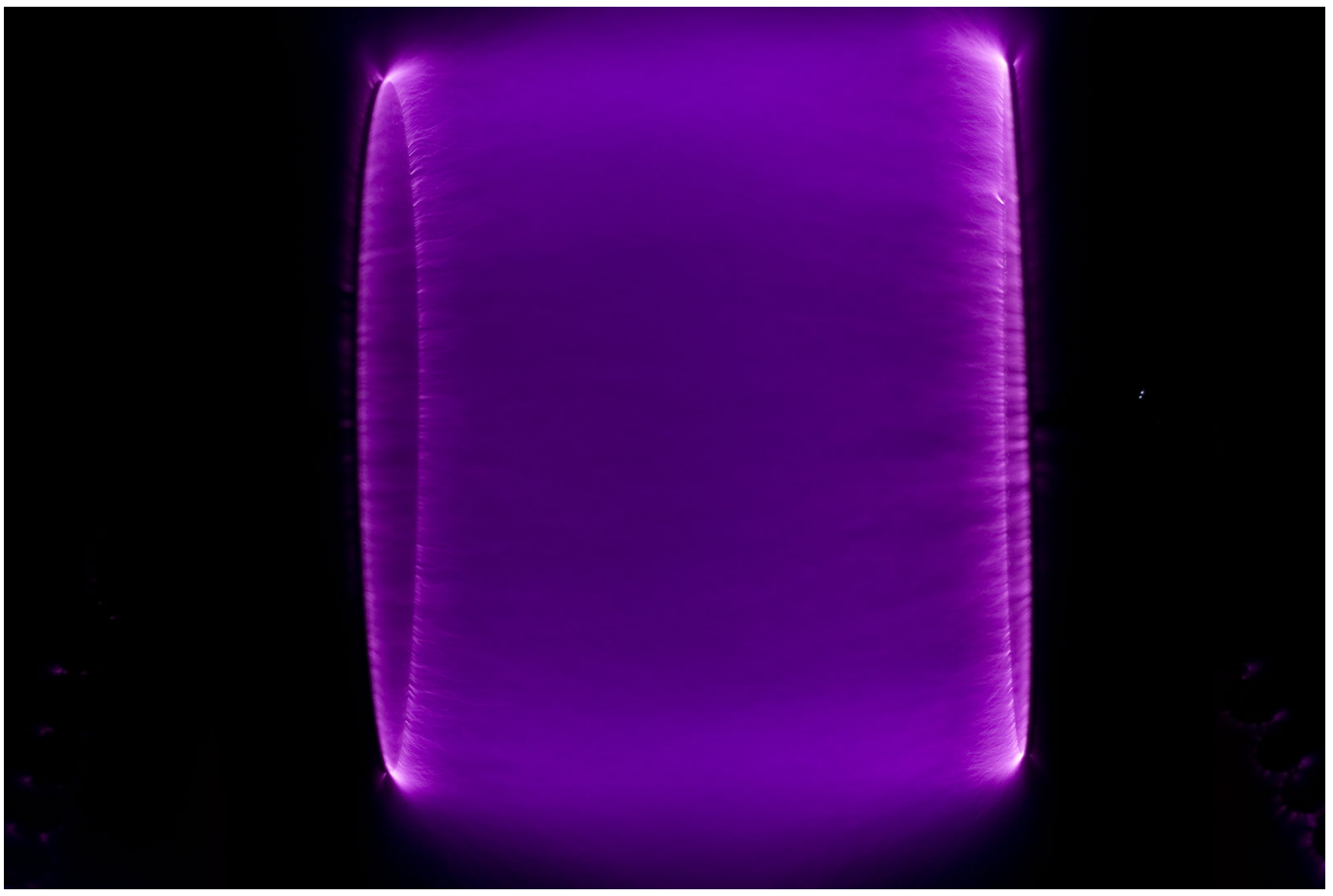
This cabinet contains metallic elements, rare arc carbons, gas spectrum tubes, and apparatus for studying their UV and visible spectrums.

Home laboratory, and living/dining room.

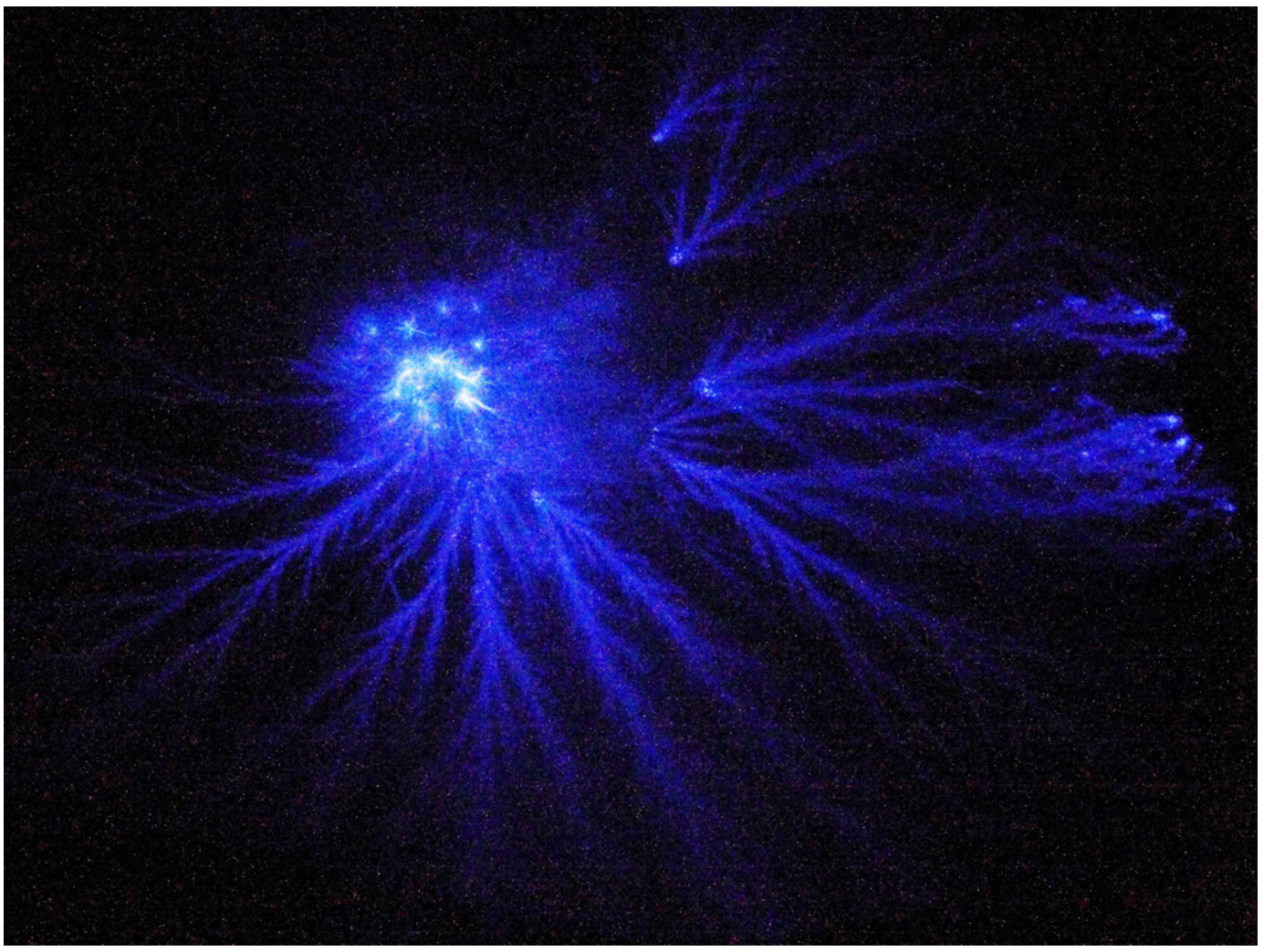
Behind Termite are several hundred kilograms of glass tubing to make special lamps from.

Pressler Geissler Tube Crown, photographed in Prague from the archives of NTM





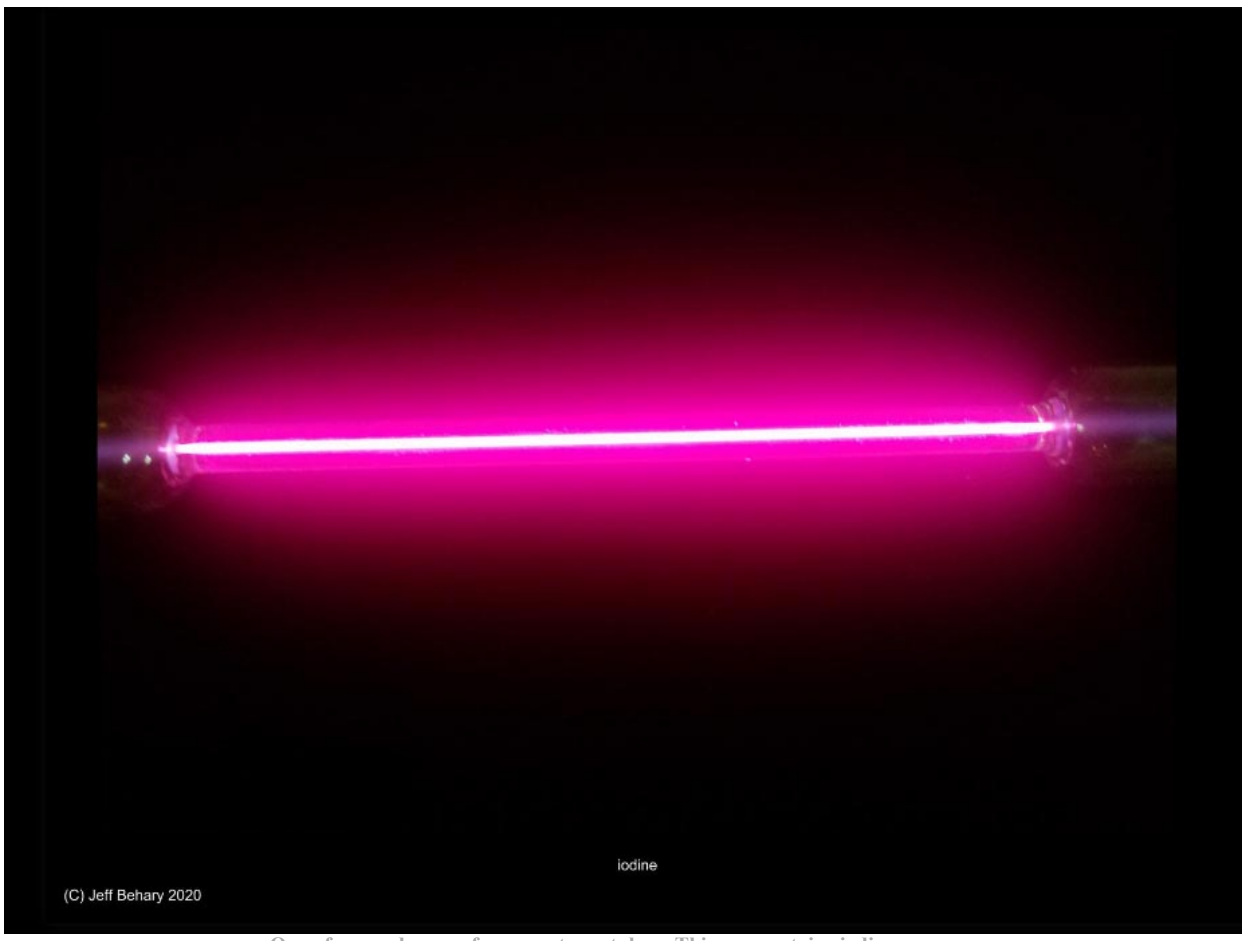
Effluves, lighting the air by Tesla method. Replicated designed by Jeff Behary. Top, tuning process. Bottom, refined.



Ultraviolet and near-ultraviolet discharges produced by apparatus replicating upper atmospheric lightning.
Photograph by Kelly McJilton, apparatus made by Jeff Behary.

A collection of UV lamps designed and made by Jeff Behary

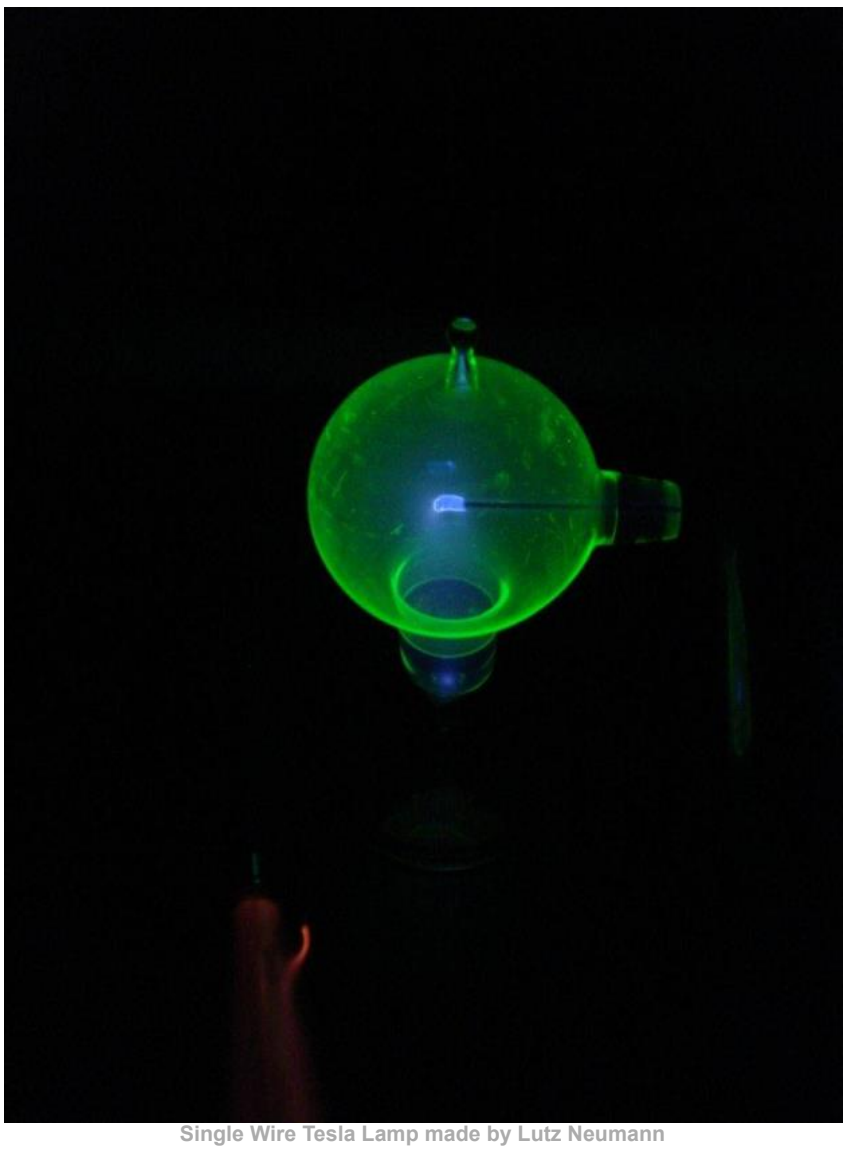
A series of historical Crookes, Geissler, X-Ray, and Ultraviolet Tubes photographed by Jeff Behary



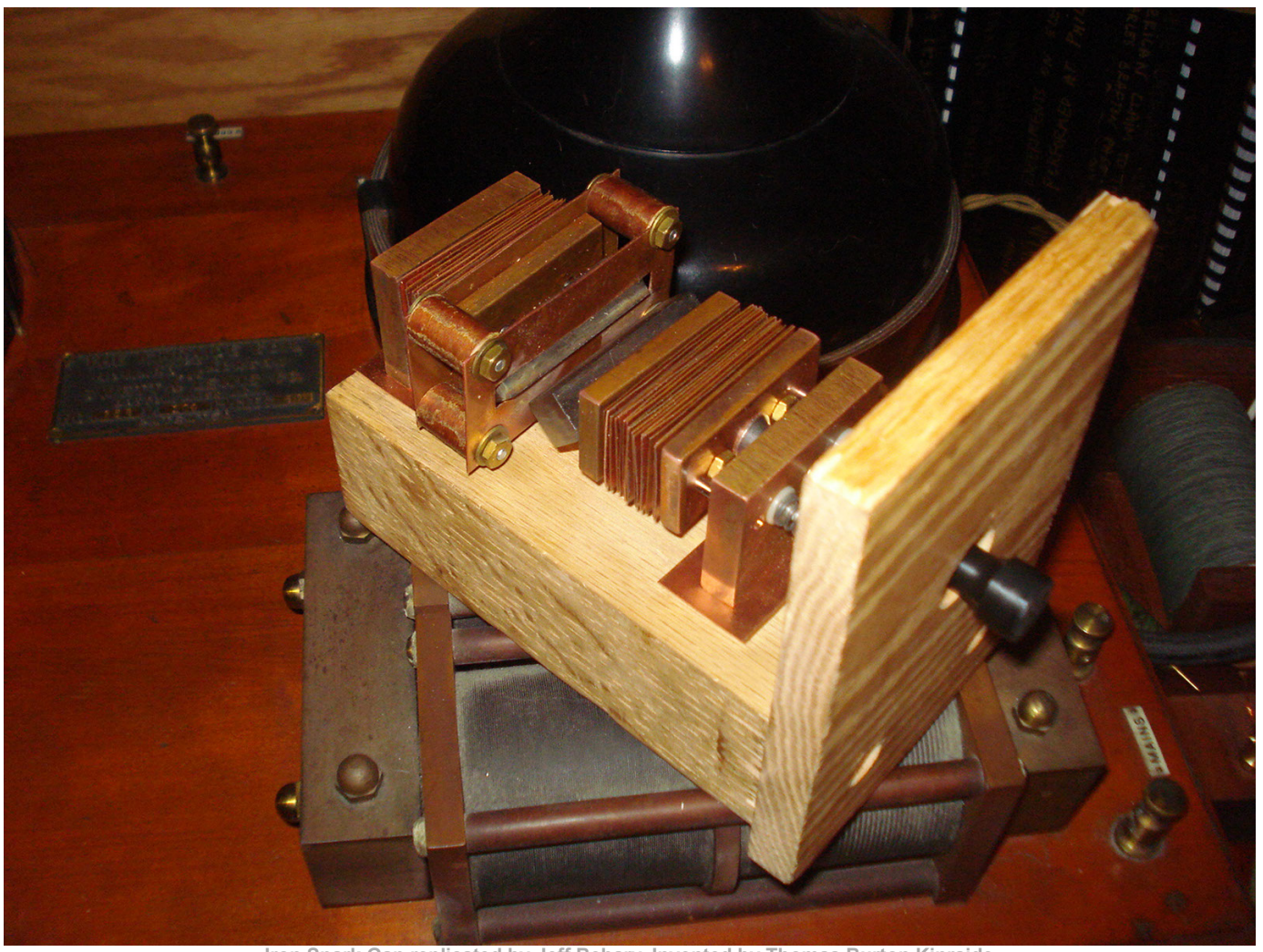
One of many dozens of gas spectrum tubes. This one contains iodine vapour.

Edison X-Ray Tube as witnessed in the home of Frank Jones

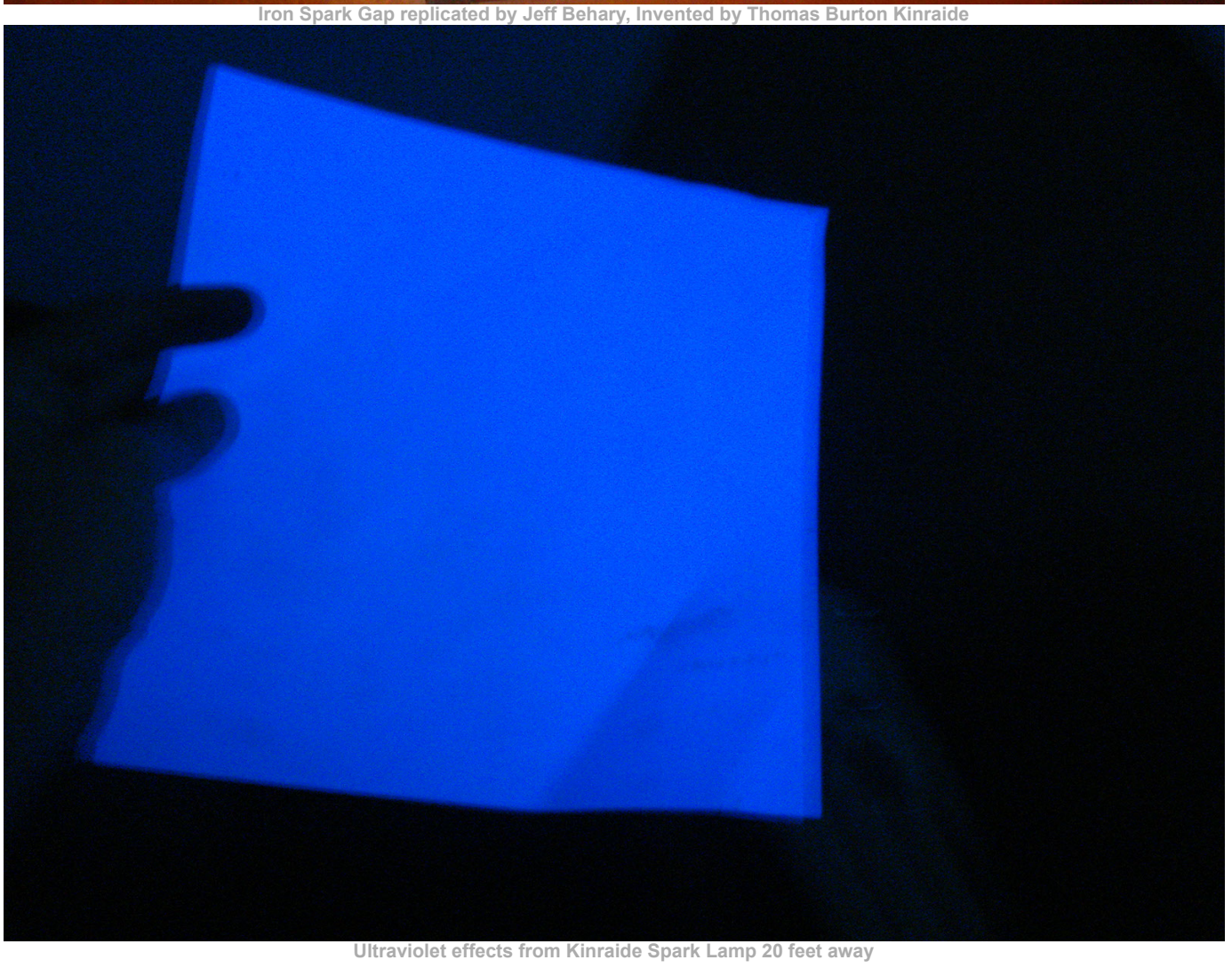
Elihu Thomson Double Focus X-Ray Tube from Gustav A. Frei Company



Single Wire Tesla Lamp made by Lutz Neumann

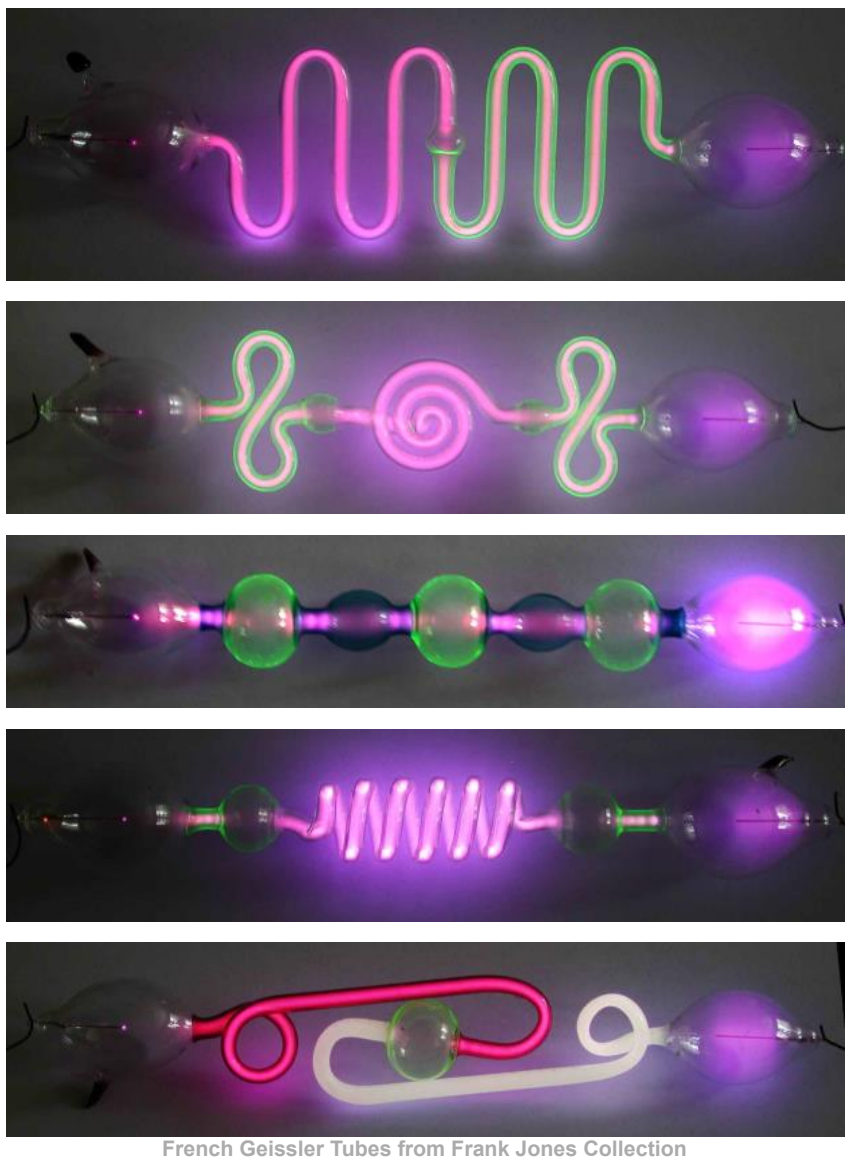


Iron Spark Gap replicated by Jeff Behary, Invented by Thomas Burton Kinraide



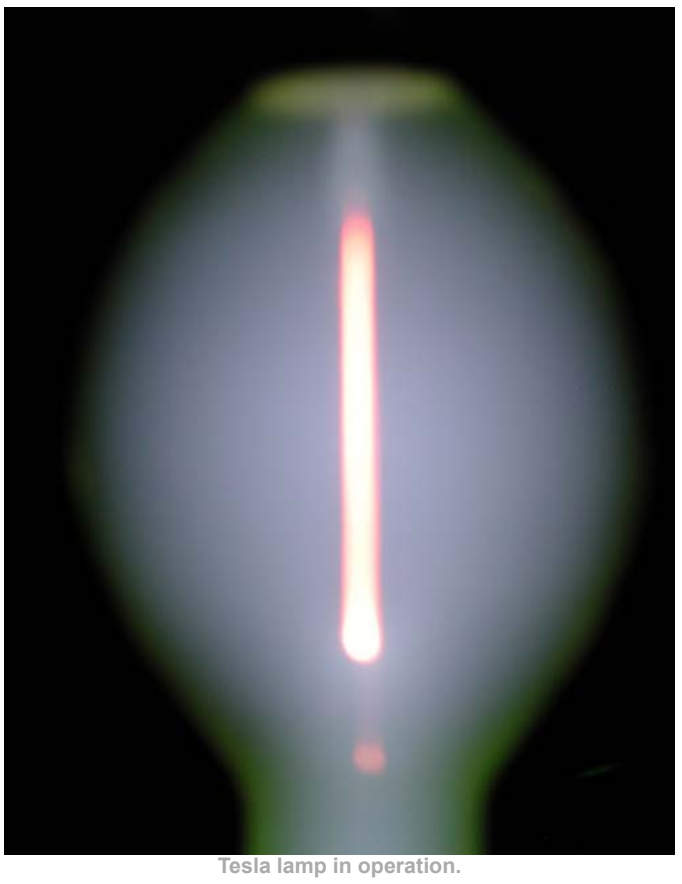
Ultraviolet effects from Kinraide Spark Lamp 20 feet away

Miniature X-Ray Tube, a gift from Jonathan and Hannah, children of Warren Fischer, the son of H.G. Fischer



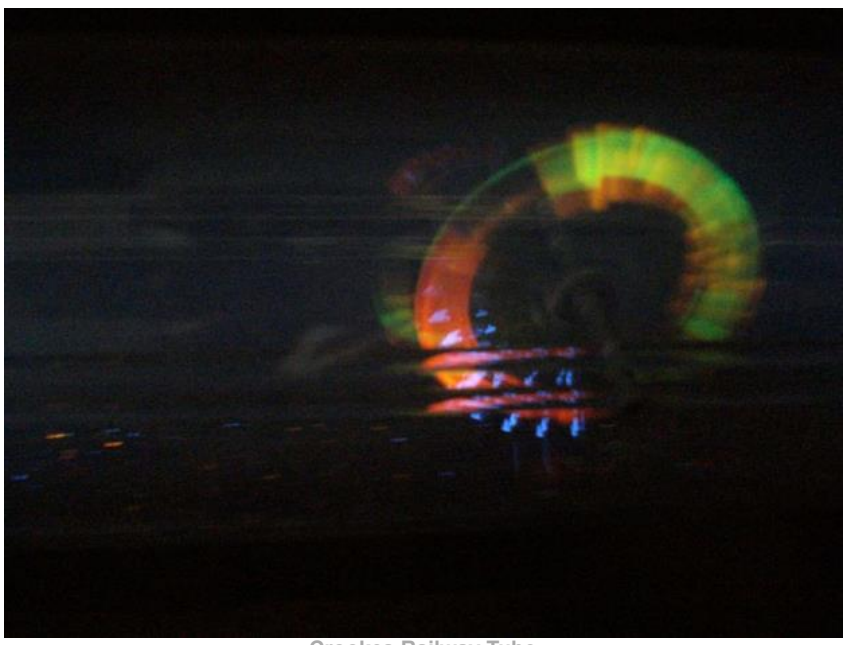
French Geissler Tubes from Frank Jones Collection

Single Wire Tesla Lamp

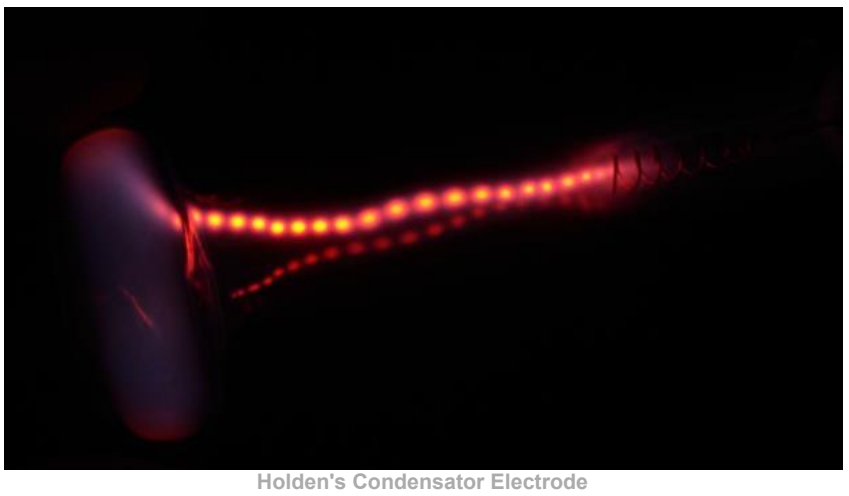


Tesla lamp in operation.

Crookes Electric Radiometer



Crookes Railway Tube



Holden's Condensator Electrode

Crookes Tube with Butterfly

Lamp made by Jeff Behary to demonstrate shooting stars

Lamp made by Jeff Behary to show high vacuum X-Rays

Cooper Hewitt UV lamp "UVIARC"

Appearance of lamp after powering down

Extremely rare Mercury Vapour Lamp made by pioneer Peter Cooper Hewitt from GE. Lamp is still in the original shipping crate!

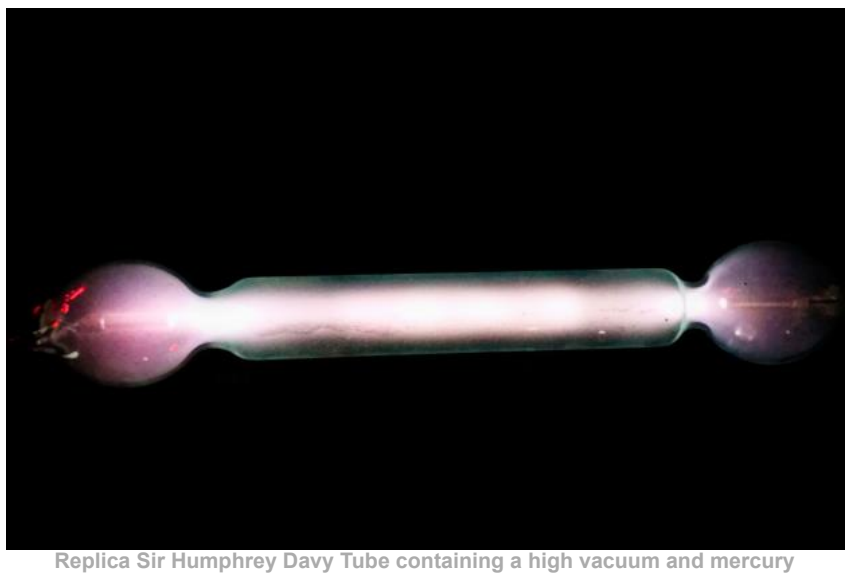
Neon Lamp from Prague from the famous Pilsner Urquell

Demonstration by Jeff Behary showing a punctured lamp can still produce X-Rays when operated from excessive voltages and frequencies.
Replica of Nikola Tesla experiment.

Crookes Maltese Cross Tube

Crookes Phosphorescent Mineral Tube

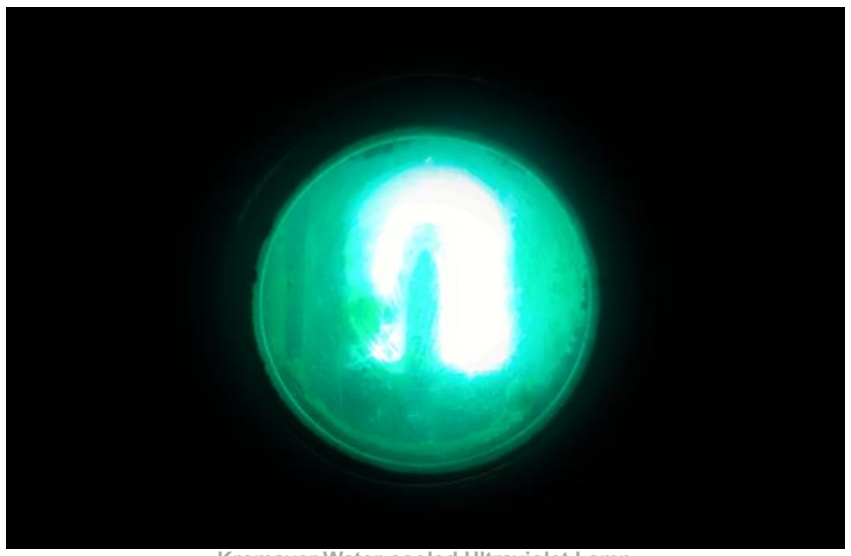
Crookes Tube with man inside



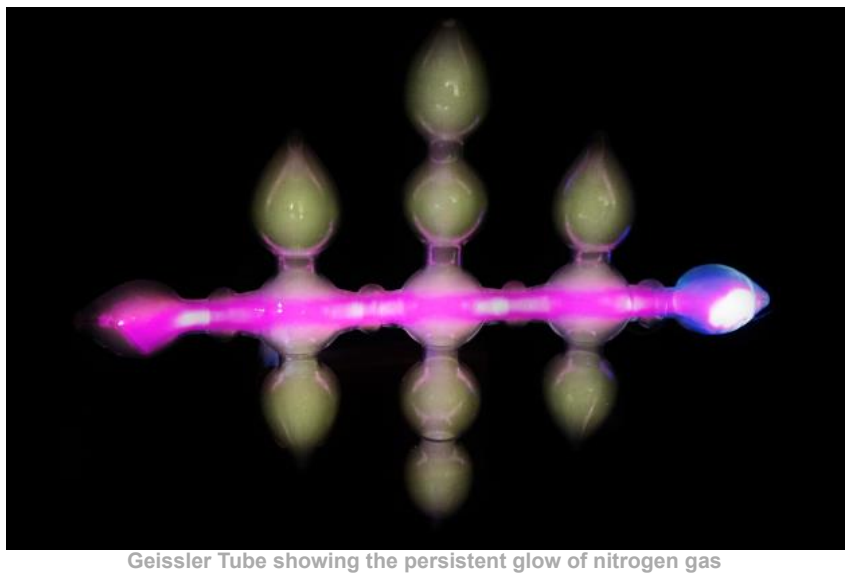
Replica Sir Humphrey Davy Tube containing a high vacuum and mercury

Ebert High Frequency Lamp

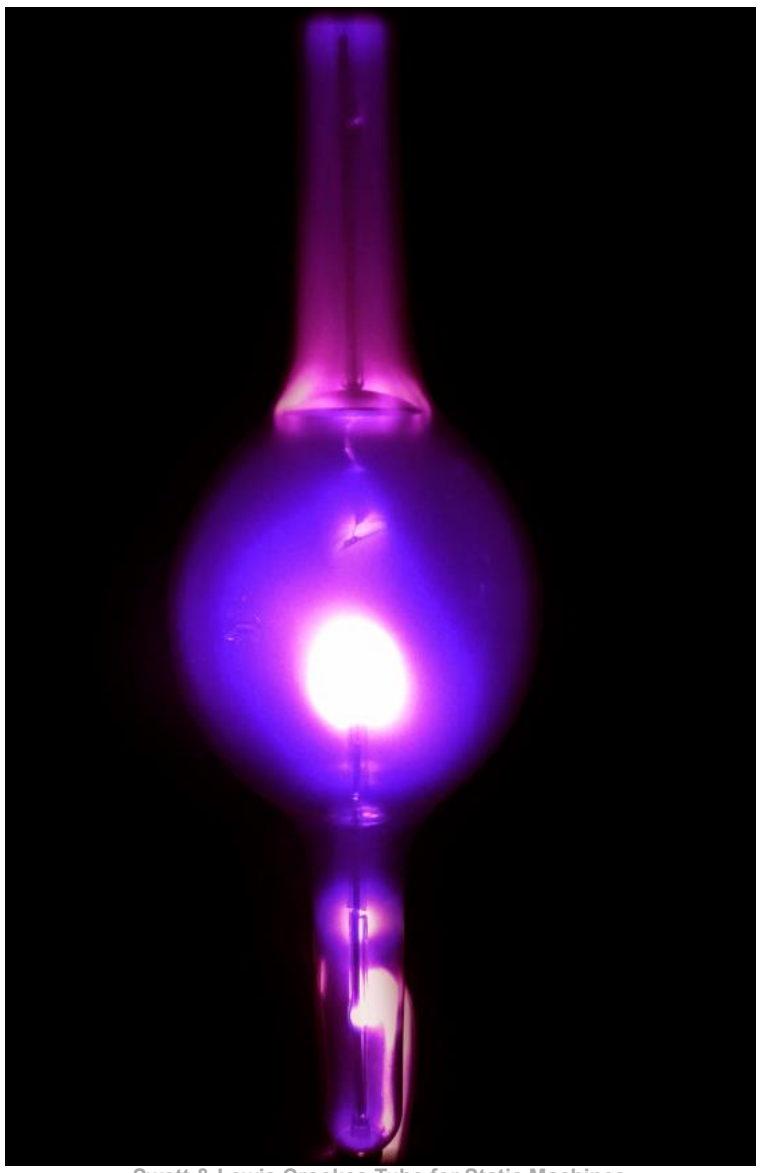
Ultraviolet Hanovia Alpine Sunlamp



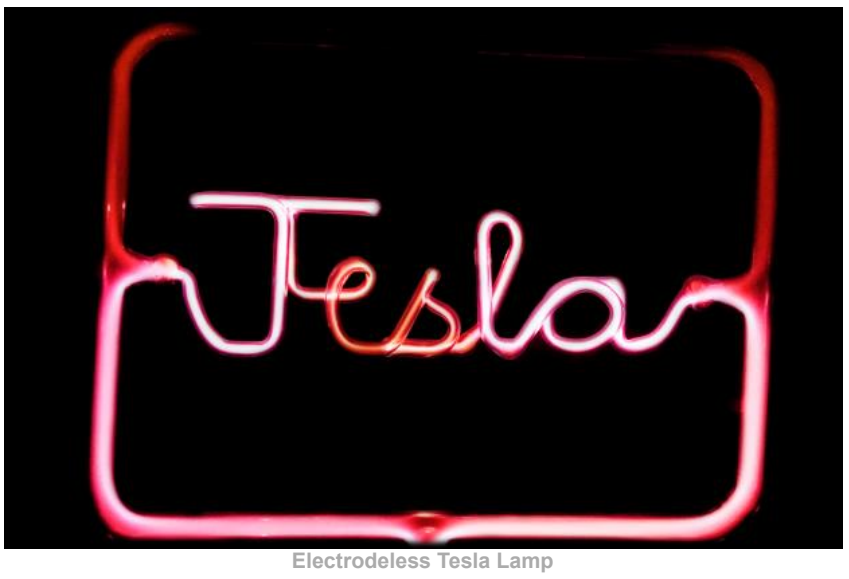
Kromayer Water-cooled Ultraviolet Lamp



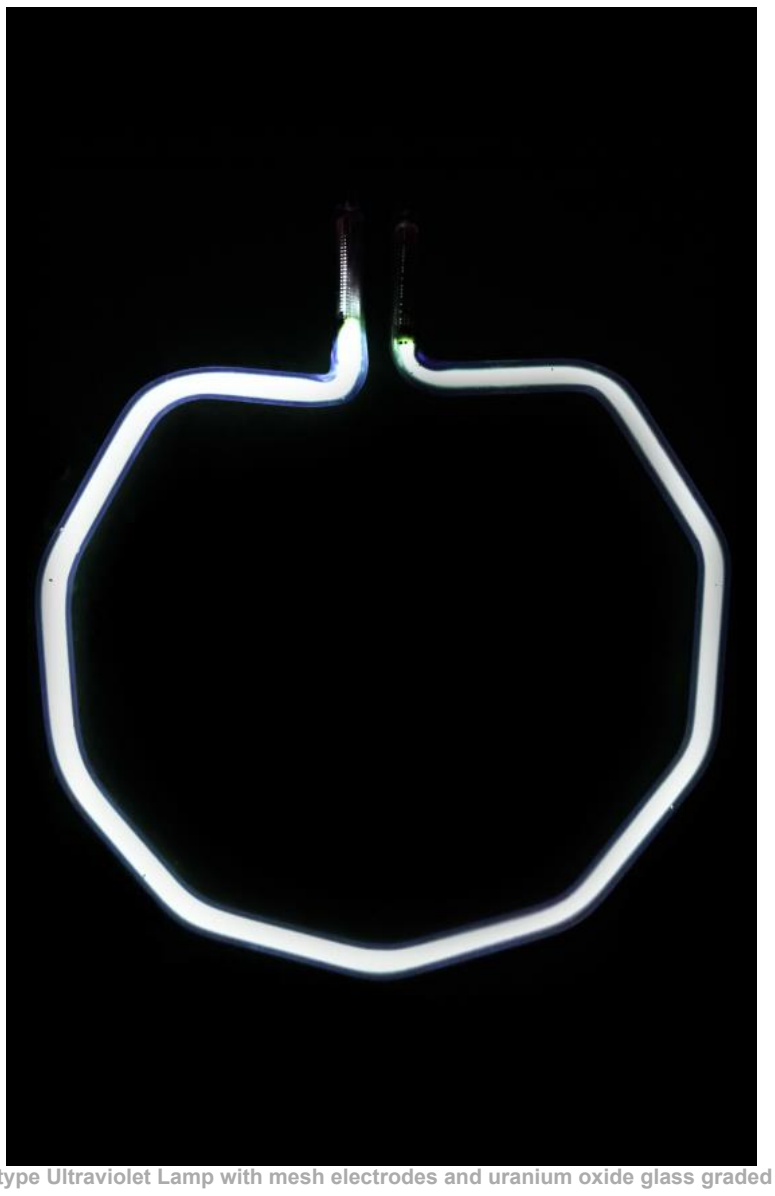
Geissler Tube showing the persistent glow of nitrogen gas



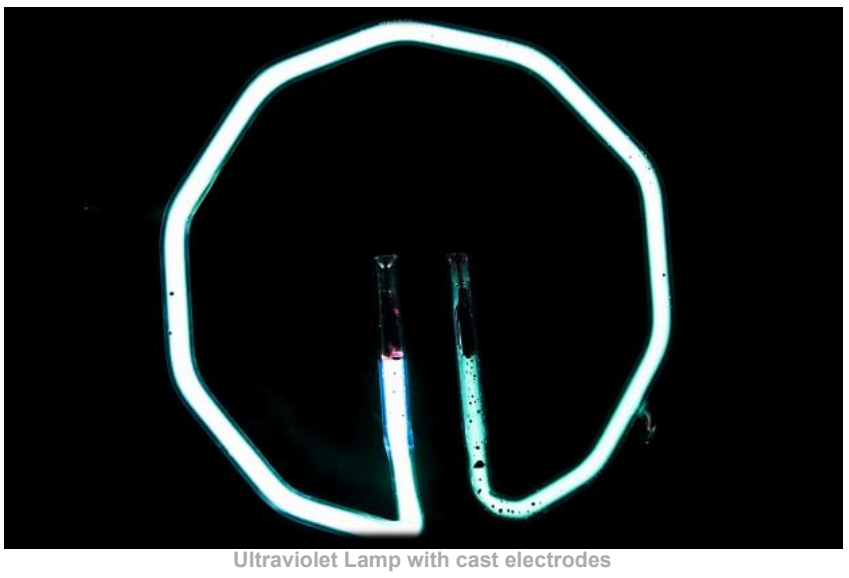
Swett & Lewis Crookes Tube for Static Machines



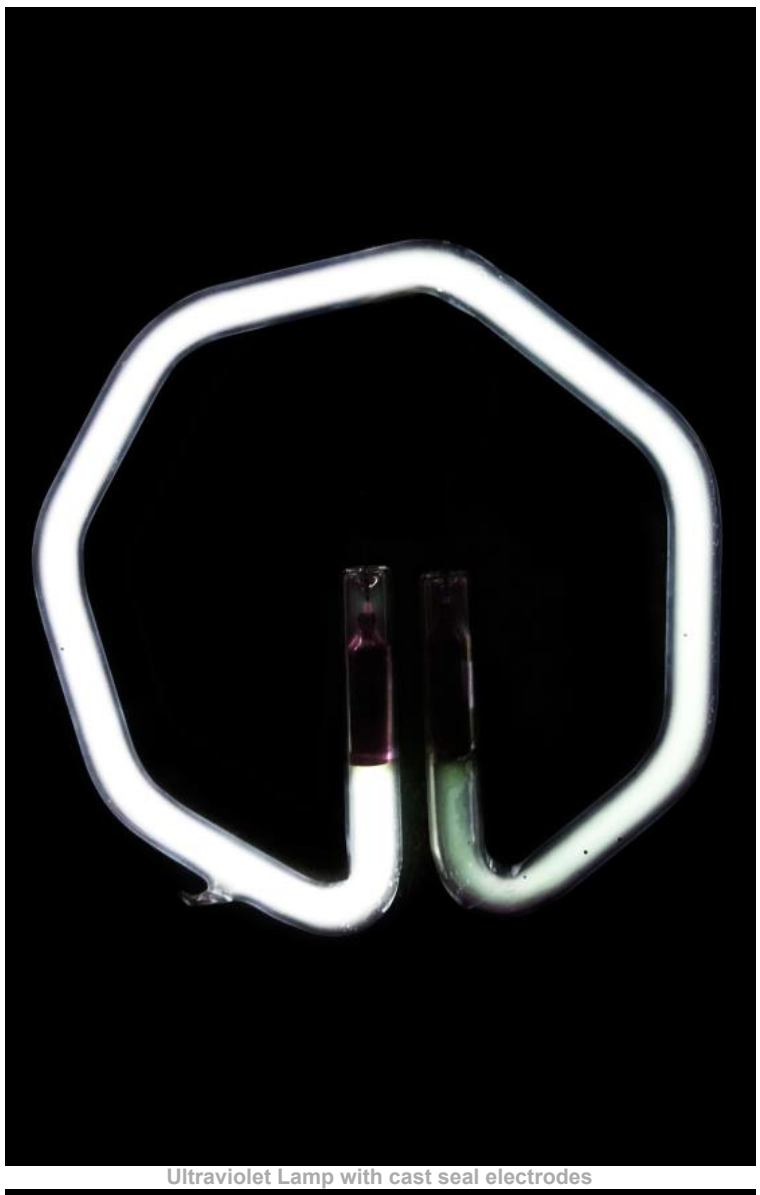
Electrodeless Tesla Lamp



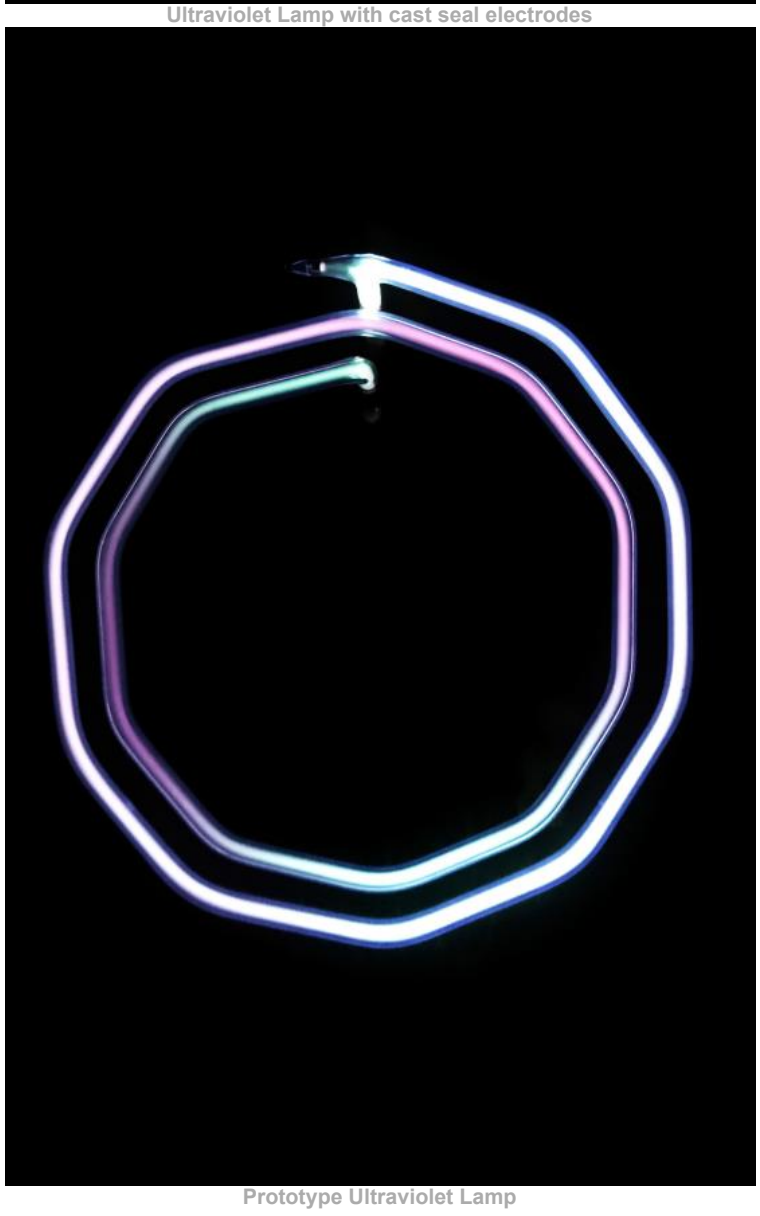
Prototype Ultraviolet Lamp with mesh electrodes and uranium oxide glass graded seal



Ultraviolet Lamp with cast electrodes

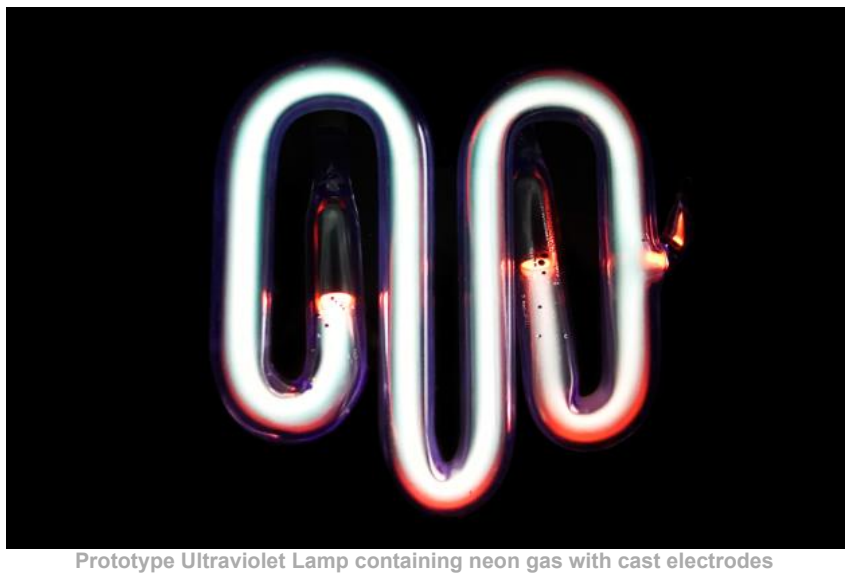


Ultraviolet Lamp with cast seal electrodes



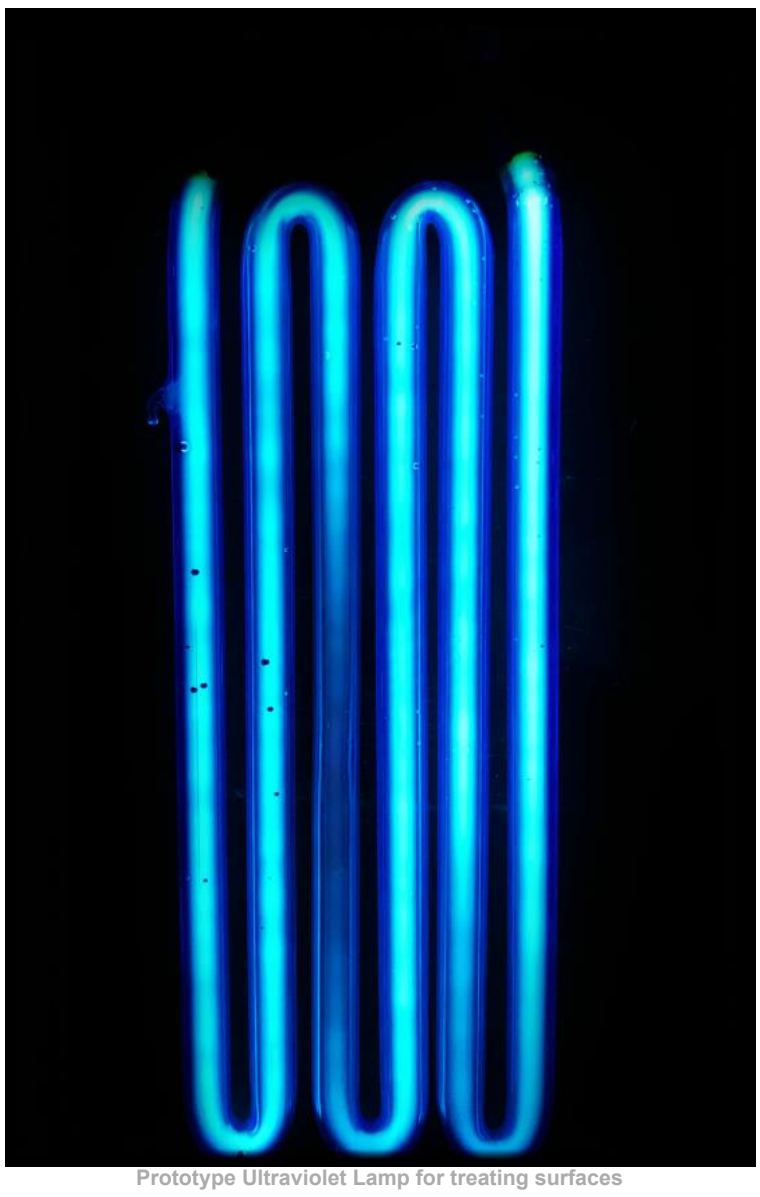
Prototype Ultraviolet Lamp

Small prototype Ultraviolet Lamp for spot treatment of skin

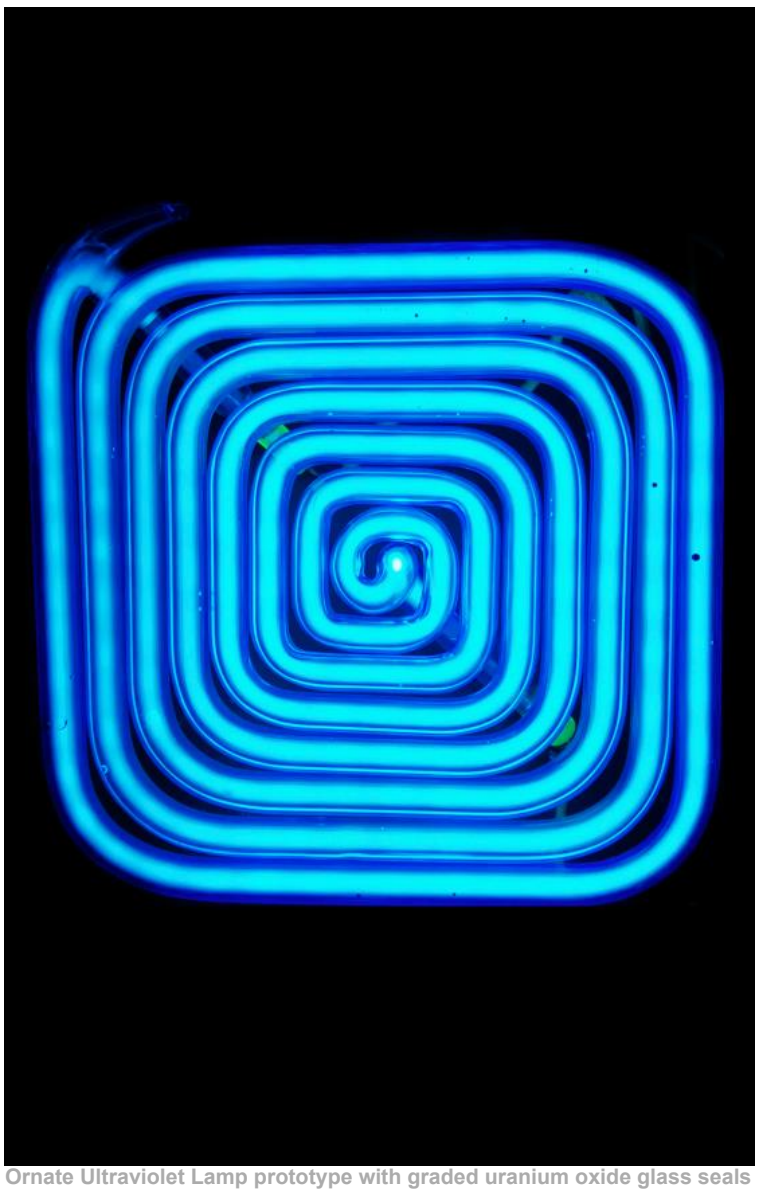


Prototype Ultraviolet Lamp containing neon gas with cast electrodes

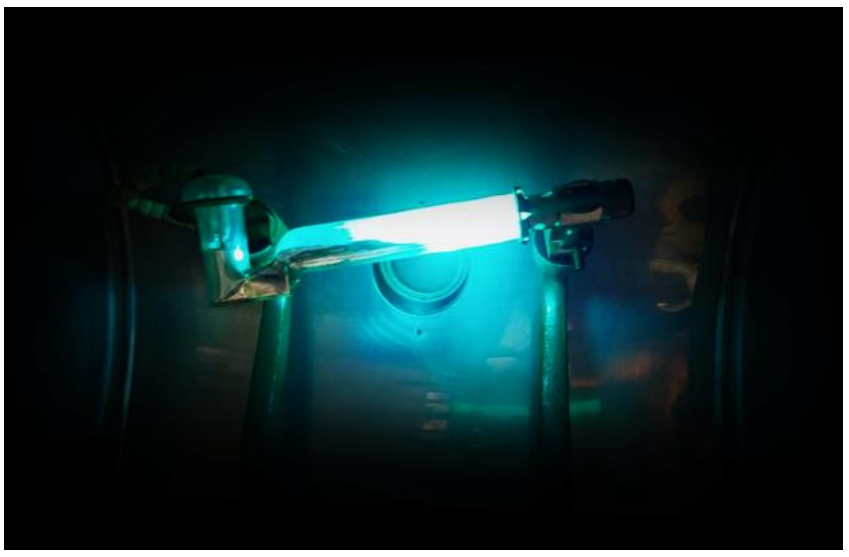
Small Prototype Ultraviolet Lamp for treating surfaces



Prototype Ultraviolet Lamp for treating surfaces



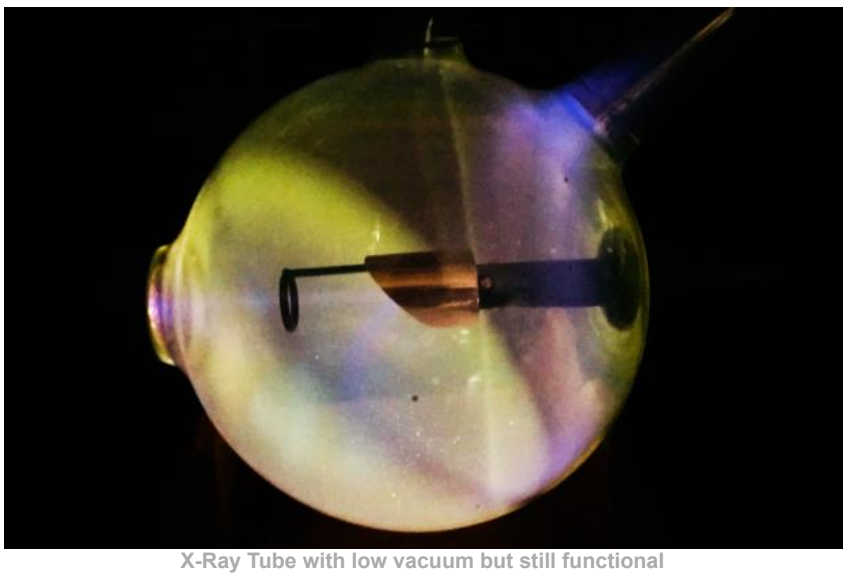
Ornate Ultraviolet Lamp prototype with graded uranium oxide glass seals



Cooper Hewitt Ultraviolet Lamp from Burdick Corporation using UVIARC bulb

Small X-Ray tube of German manufacture ca 1896

X-Ray tube showing vacuum too low



X-Ray Tube with low vacuum but still functional

Rare X-Ray tube made of Bohemian crystal glass

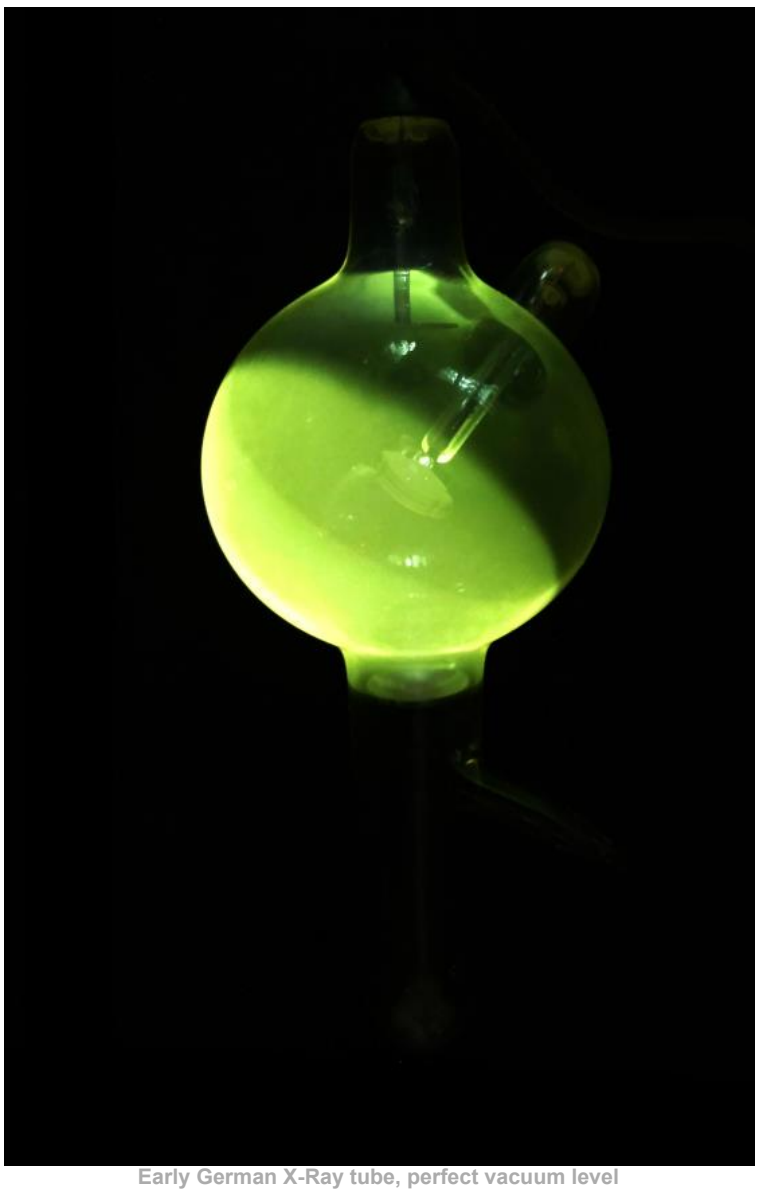
Small German X-Ray Tube made by Pressler

Green & Bauer X-Ray tube. Both men died as X-Ray martyrs.

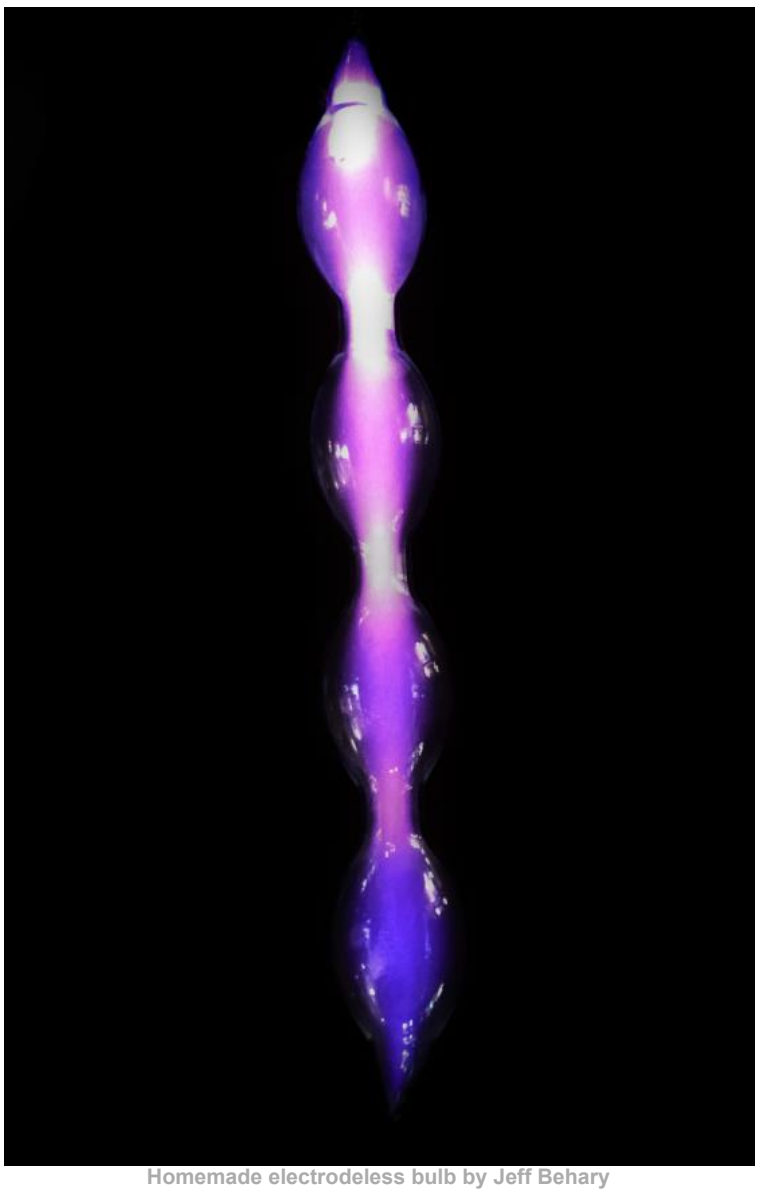
Gundelach X-Ray Tube

Small Pressler X-Ray tube

Early German X-Ray tube

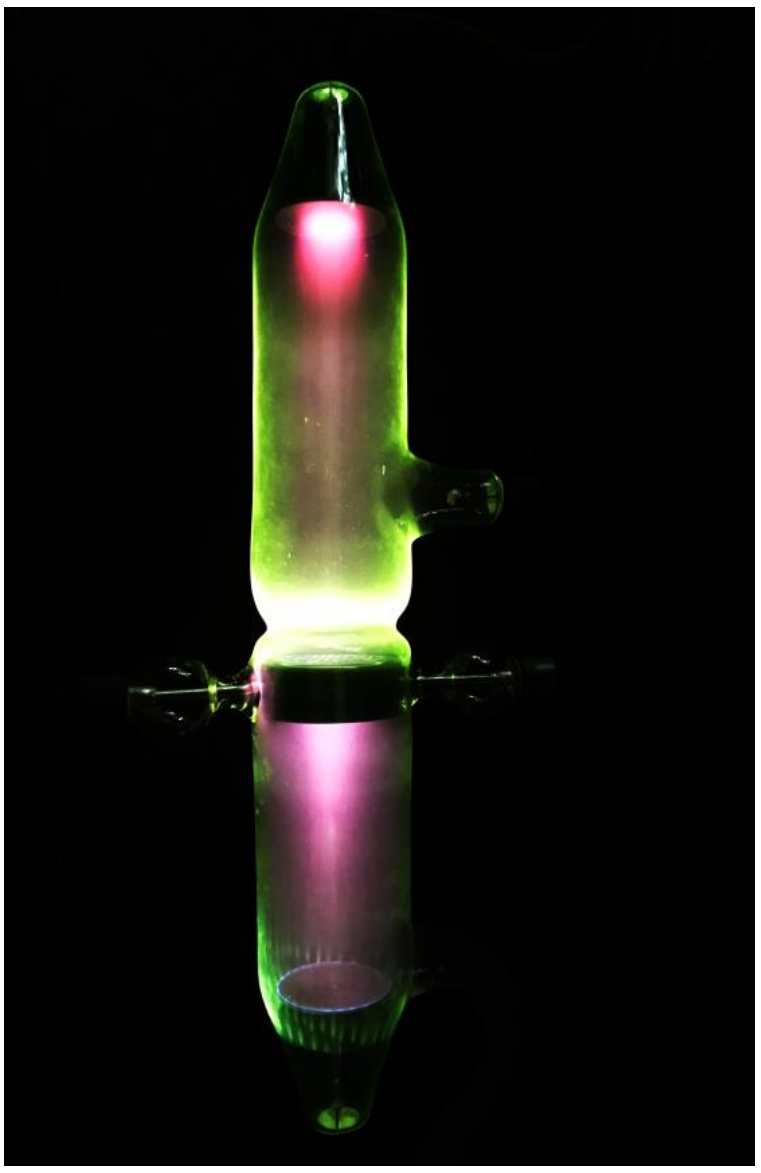


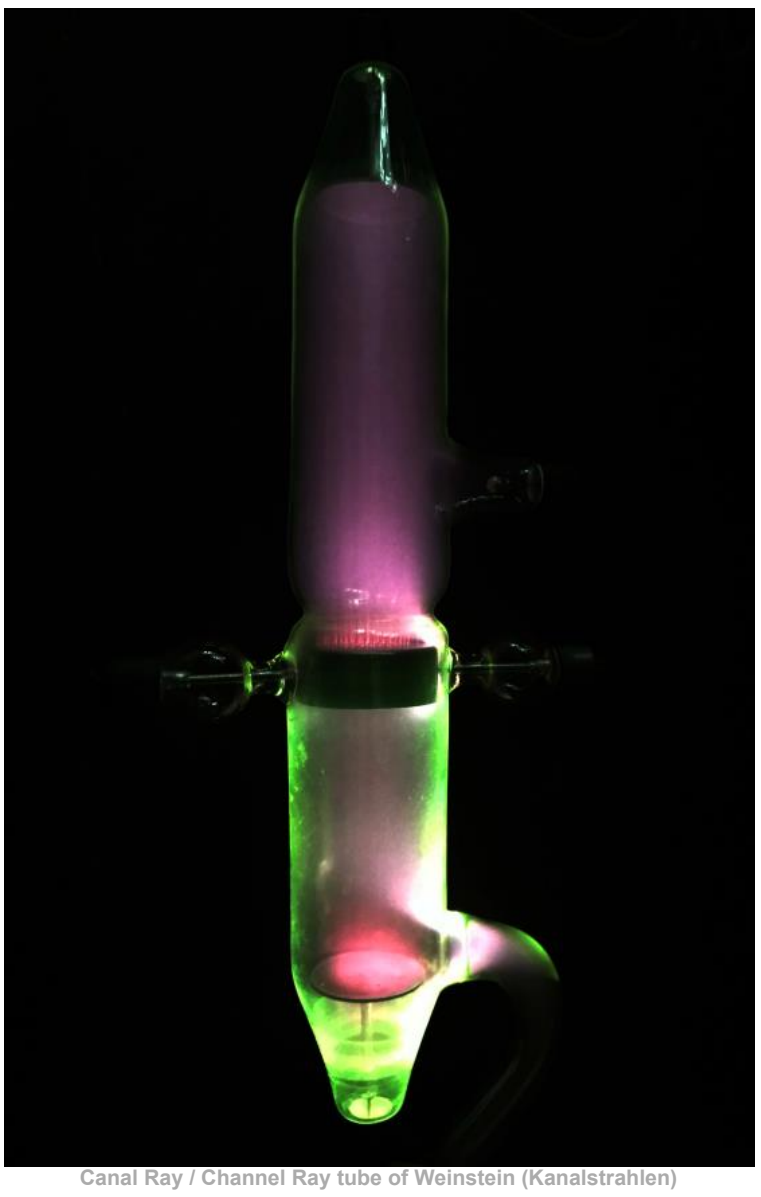
Early German X-Ray tube, perfect vacuum level



Homemade electrodeless bulb by Jeff Behary

Early Geissler Tube with Uranium Oxide glass





Canal Ray / Channel Ray tube of Weinstein (Kanalstrahlen)

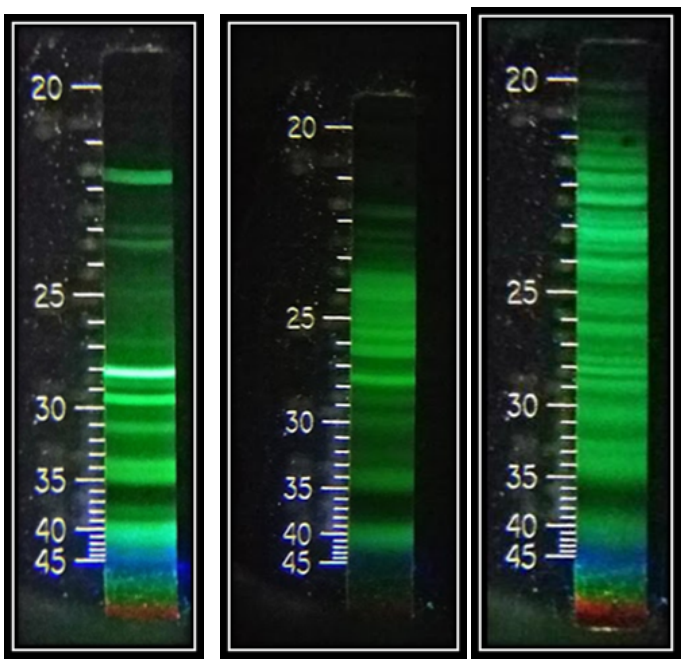
Fluoroscope of Jeff Behary's hand using early X-Ray tube

Rare examples of early prototype UV lamps made of quartz glass

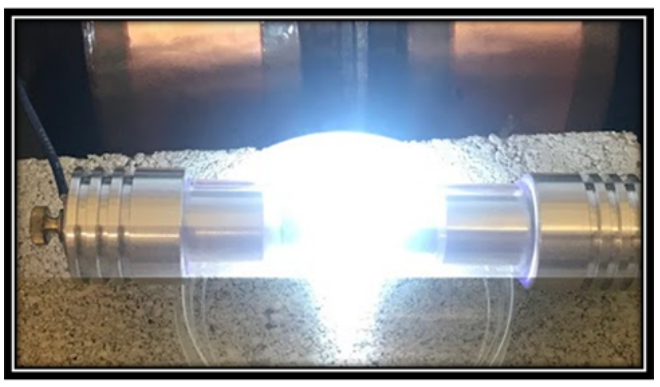
Glass vacuum electrodes used to apply high frequency sparks to the body for therapeutic and ultraviolet effects.
Originally developed by Dr. Frederick Finch Strong in 1896

Early vacuum electrodes and glass ozone generator.

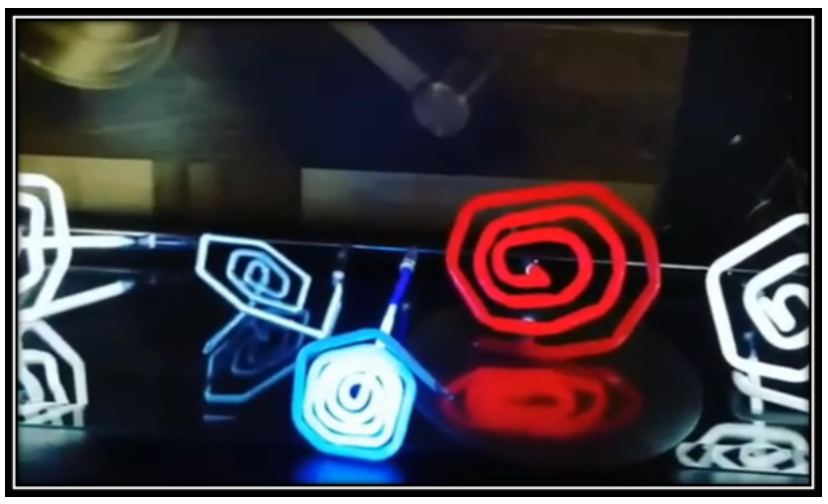
A series of lamps based on Tesla's work designed and made by Jeff Behary



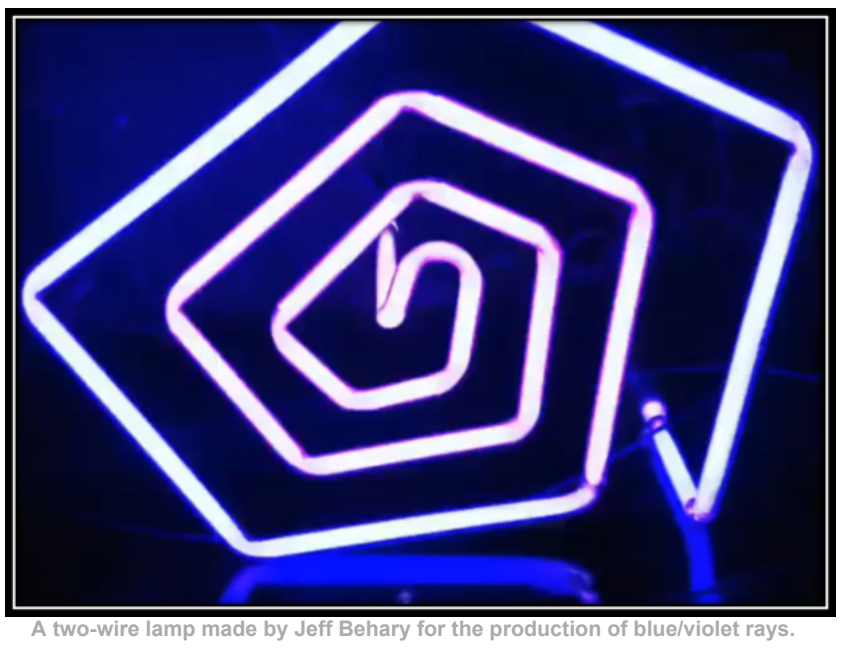
Broad-spectrum UV outputs of lamps developed by Jeff Behary for killing bacteria, molds, and viruses.



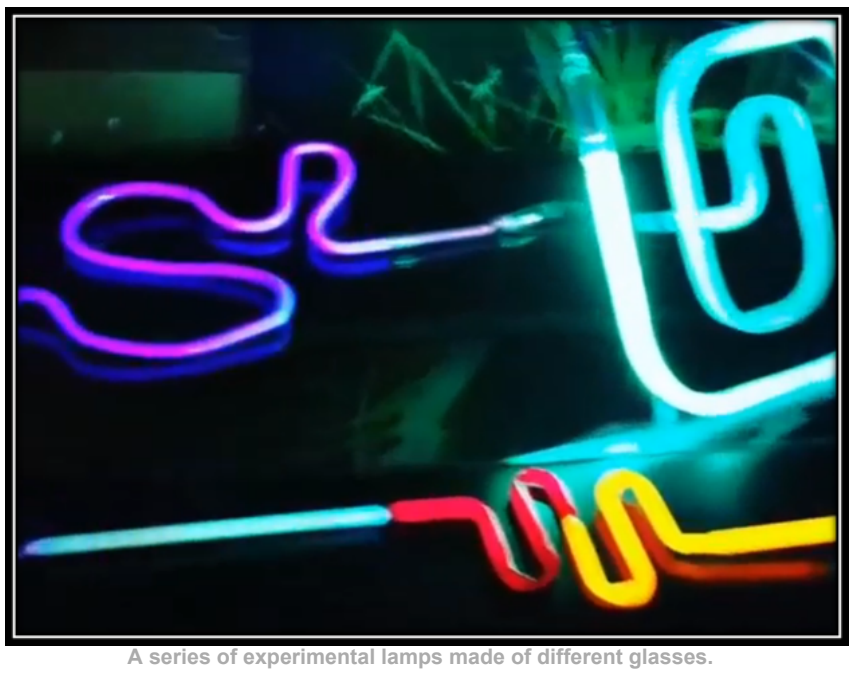
Early prototype lamp in operation, power consumption 120 watts.



A series of lamps made by Jeff Behary all with only one conducting wire. Based on the work of Nikola Tesla.

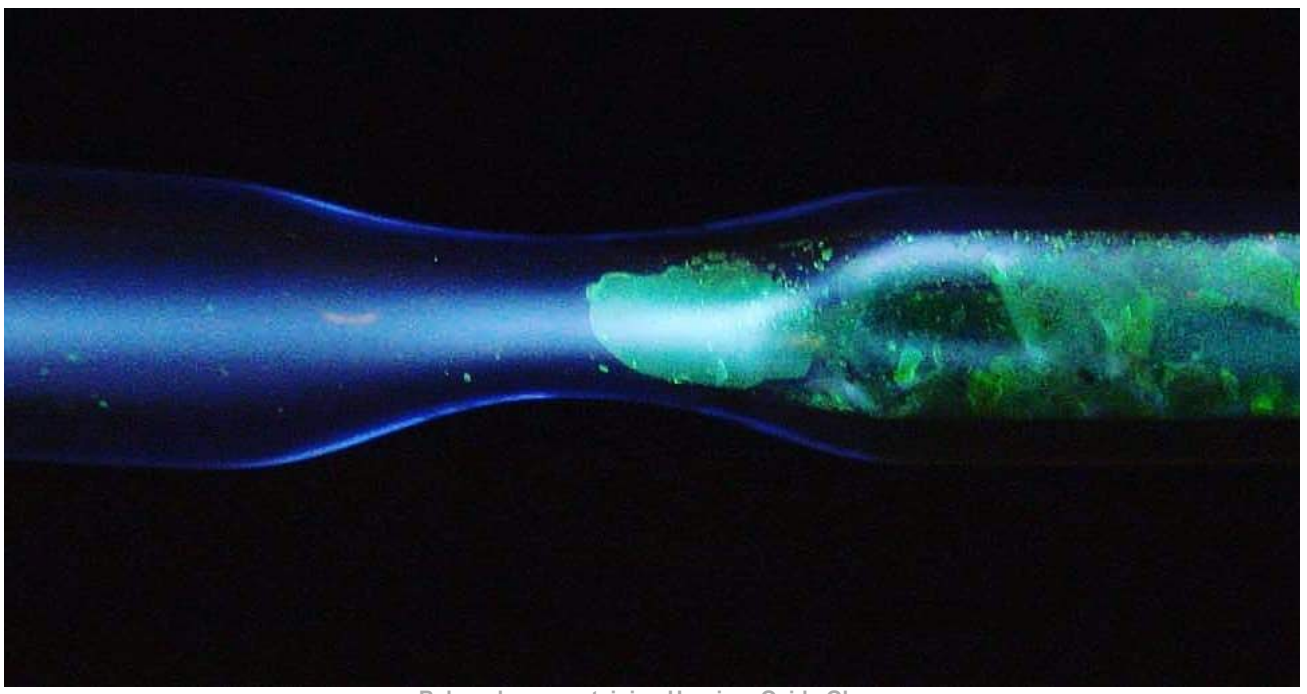


A two-wire lamp made by Jeff Behary for the production of blue/violet rays.

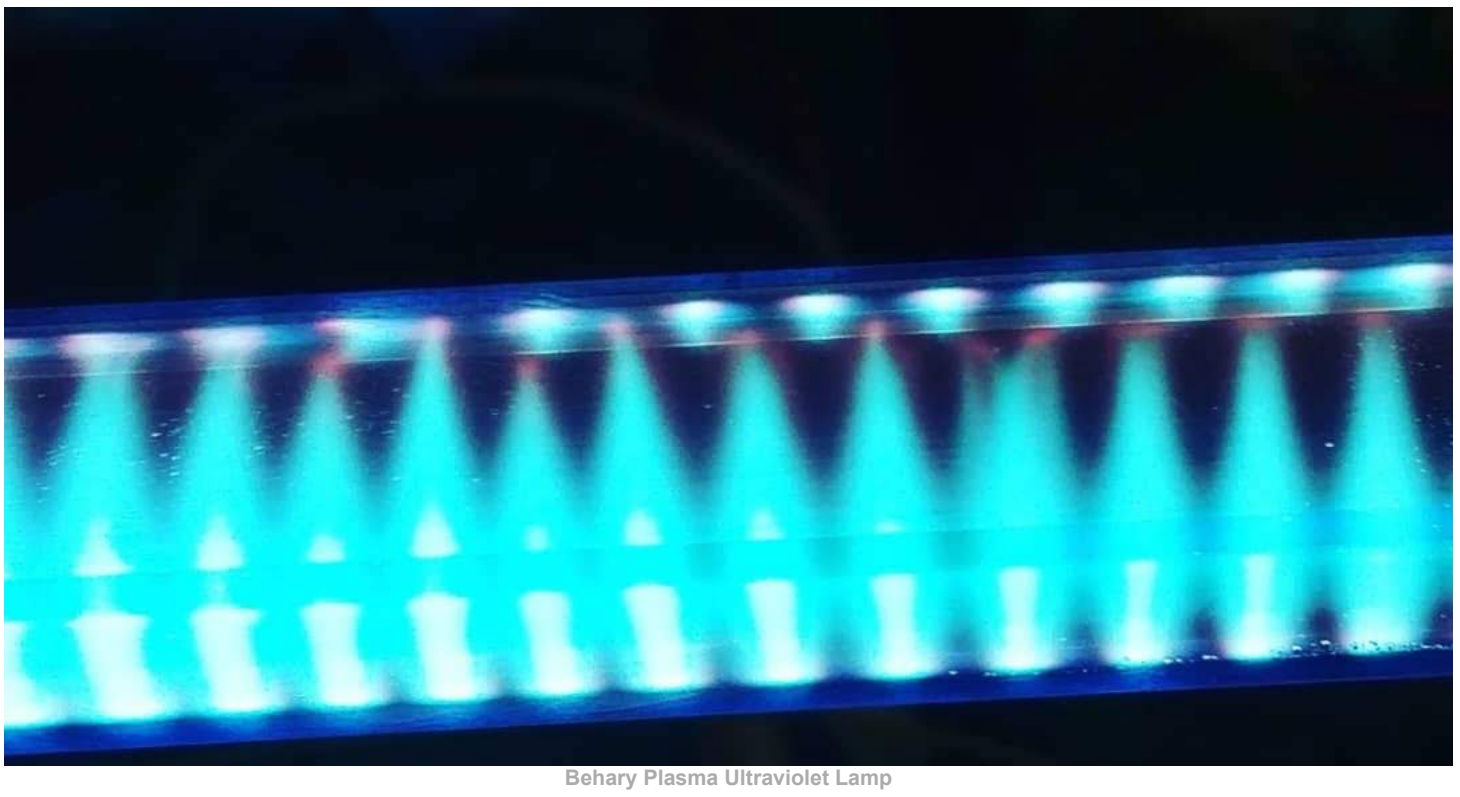


A series of experimental lamps made of different glasses.

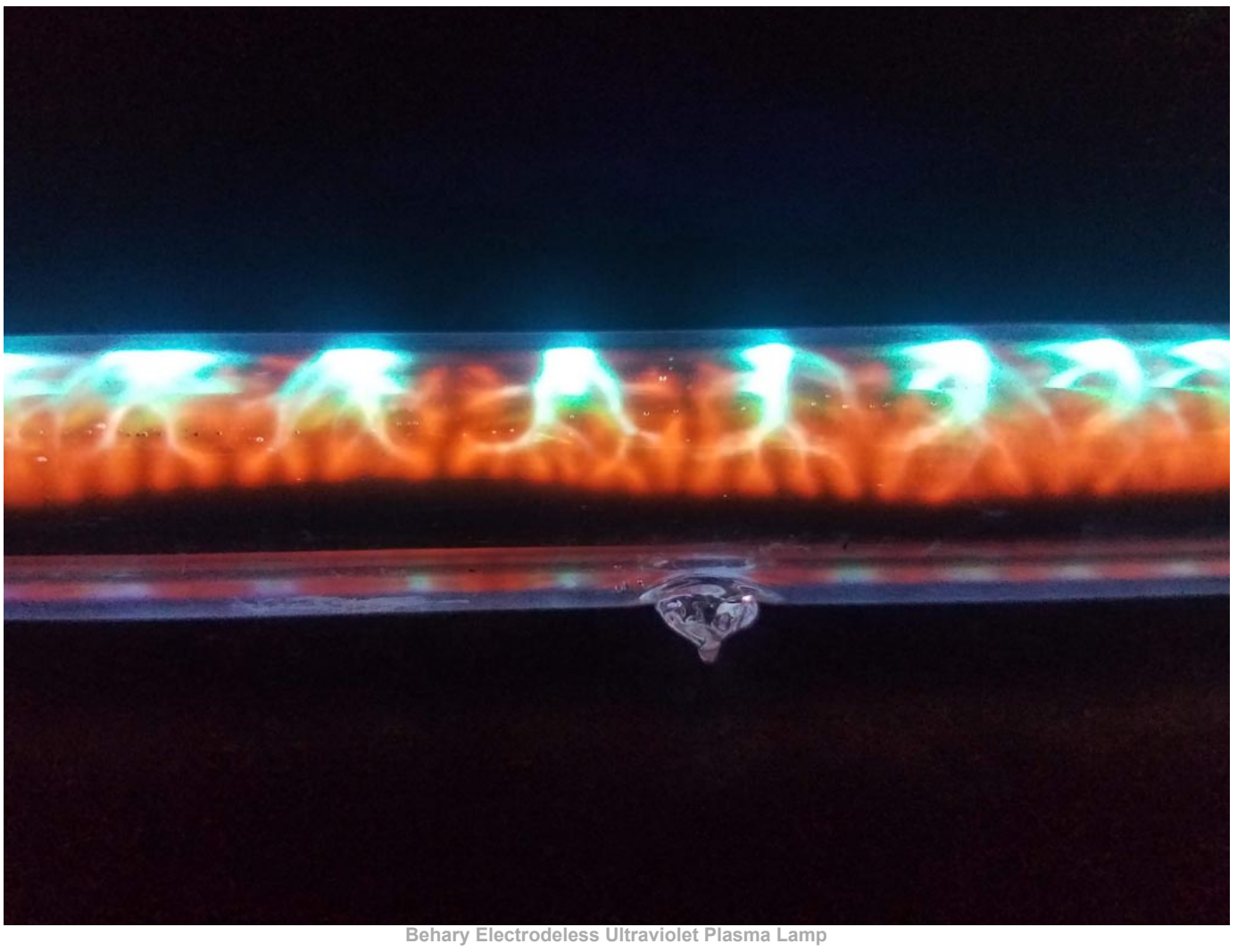
A series of electrodeless lamps made by Jeff Behary. They are powered wirelessly by a high frequency field.
Based off of the work of Nikola Tesla in the 1890s.



Behary lamp containing Uranium Oxide Glass



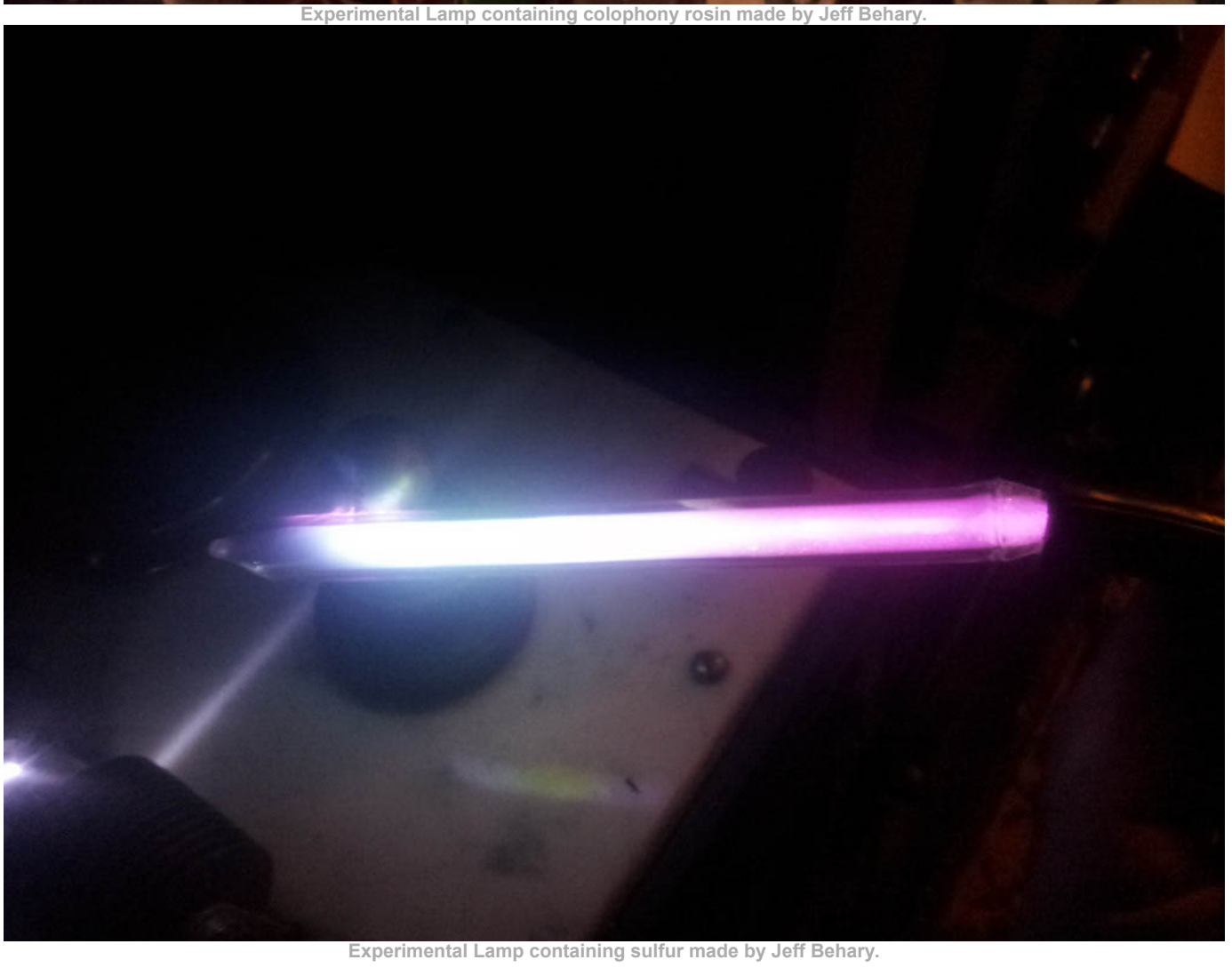
Behary Plasma Ultraviolet Lamp



Behary Electrodeless Ultraviolet Plasma Lamp

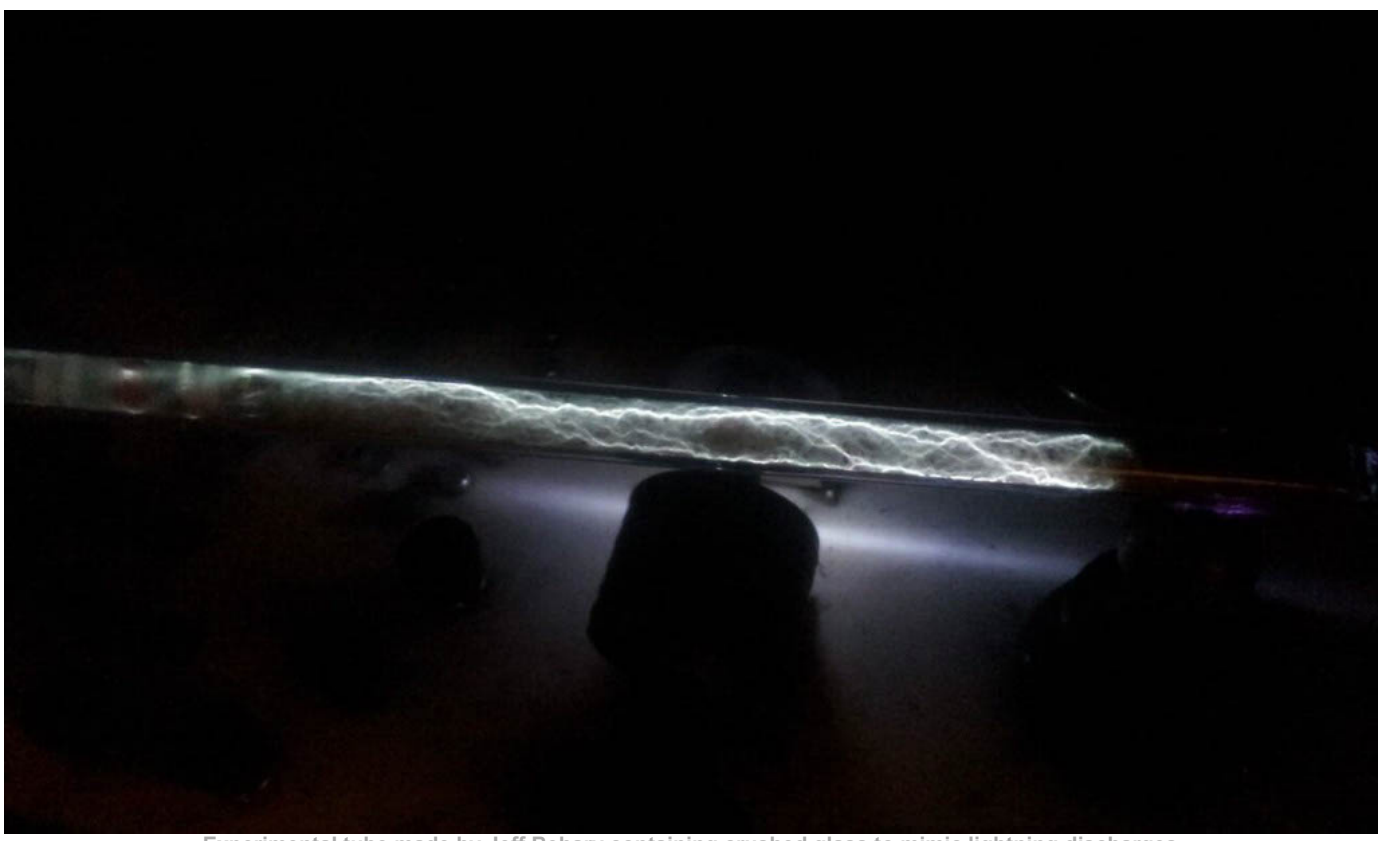
Experimental Electrodeless Lamps made by Jeff Behary from 2012-2014

Experimental Lamp containing colophony rosin made by Jeff Behary.

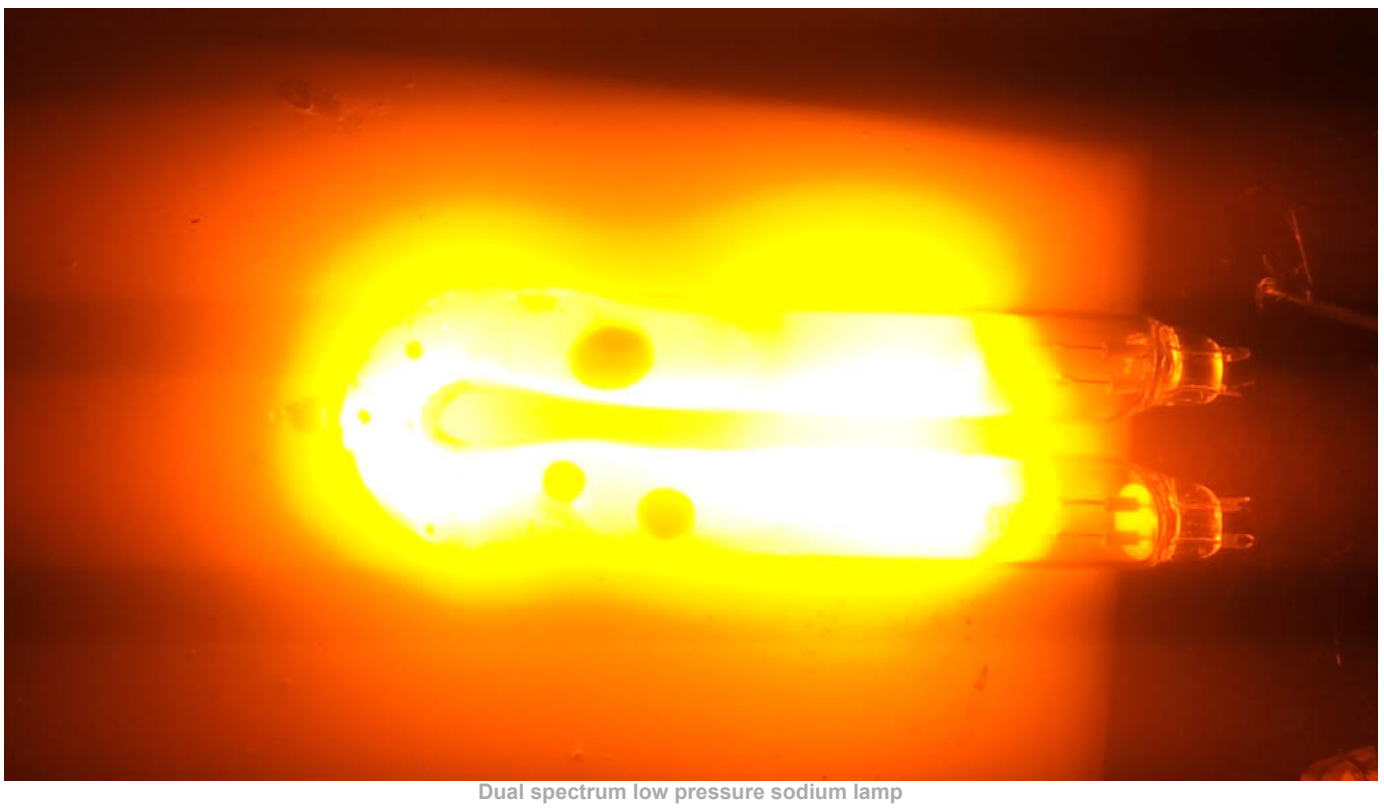


Experimental Lamp containing sulfur made by Jeff Behary.

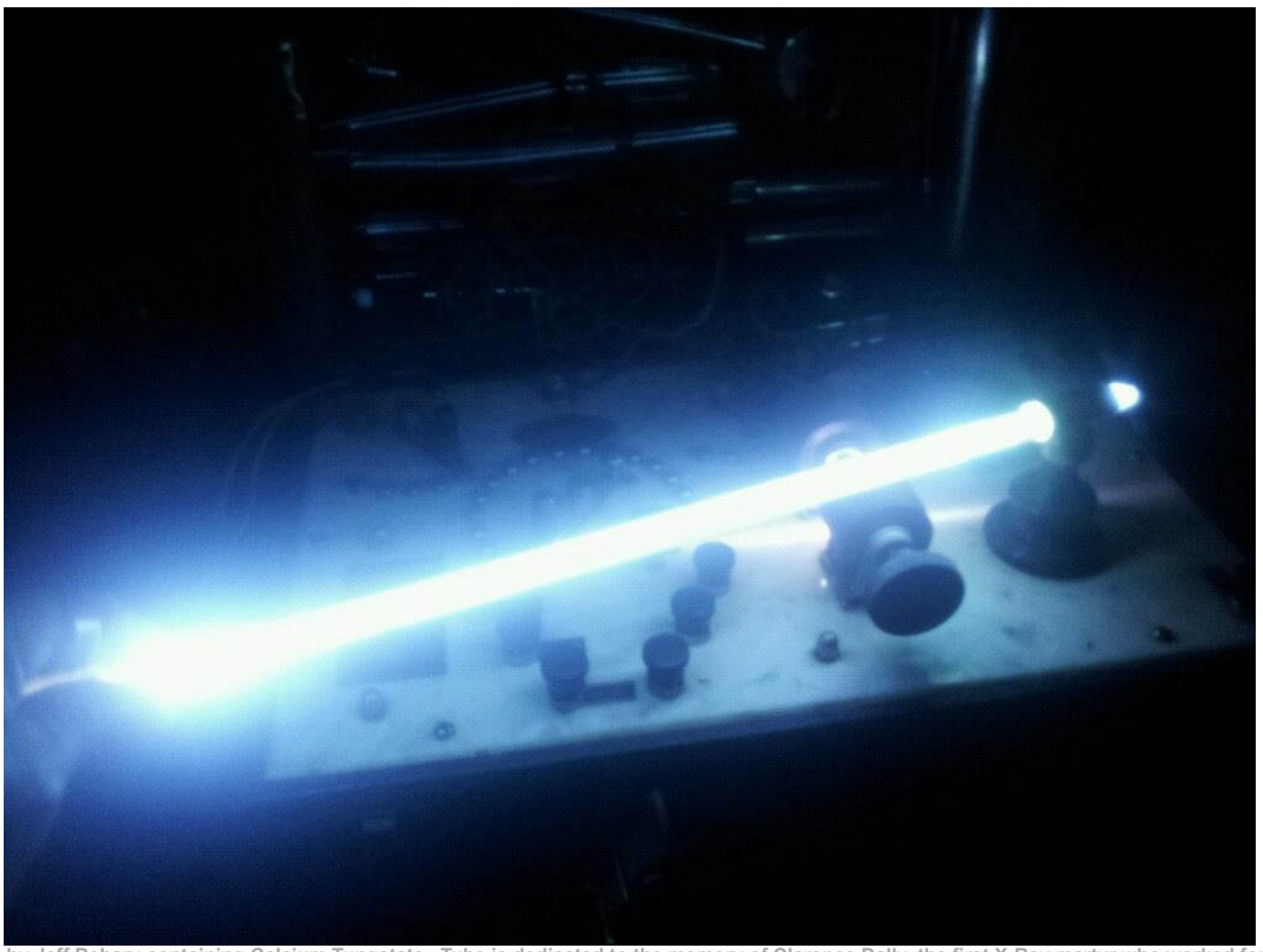
Experimental Lamp containing argon and Iodine made by Jeff Behary



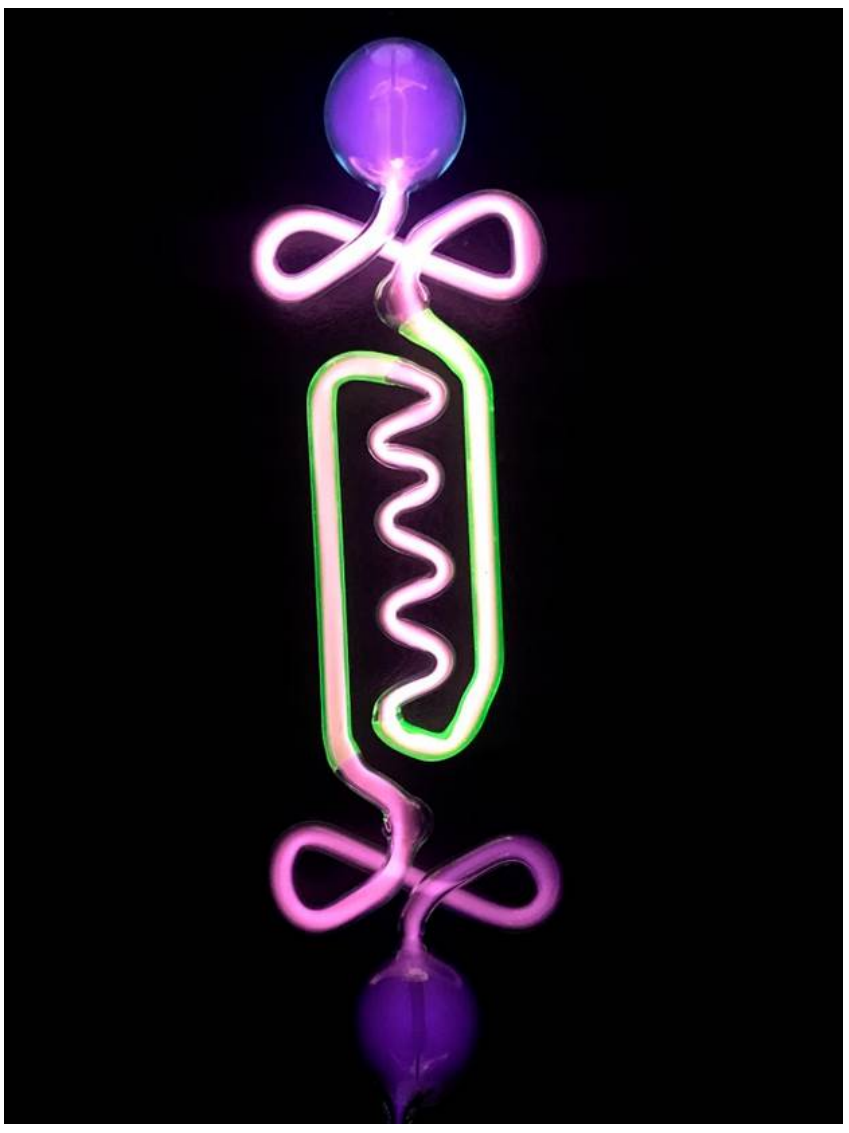
Experimental tube made by Jeff Behary containing crushed glass to mimic lightning discharges



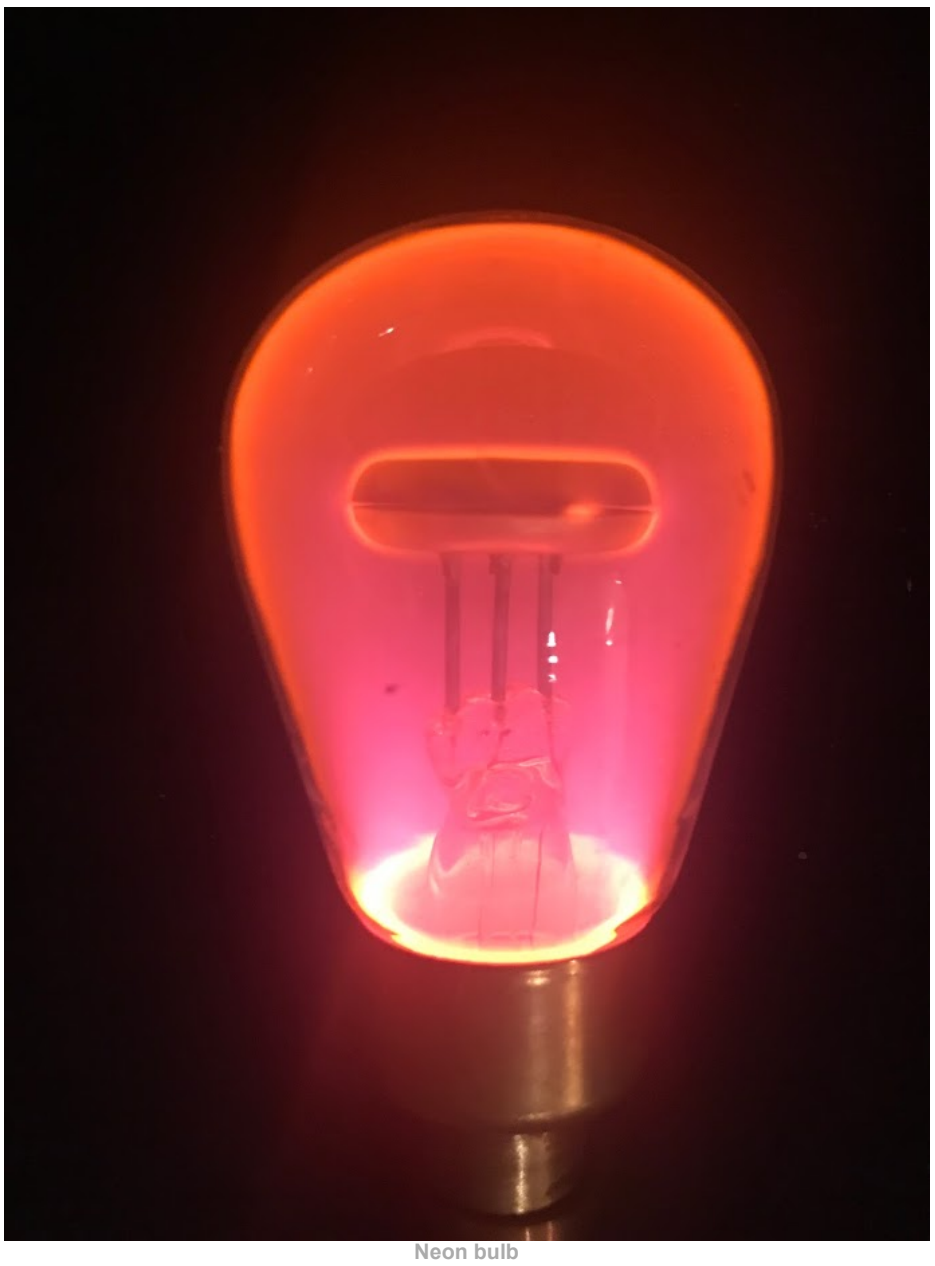
Dual spectrum low pressure sodium lamp



Bright lamp made by Jeff Behary containing Calcium Tungstate. Tube is dedicated to the memory of Clarence Dally, the first X-Ray martyr who worked for Thomas Edison.

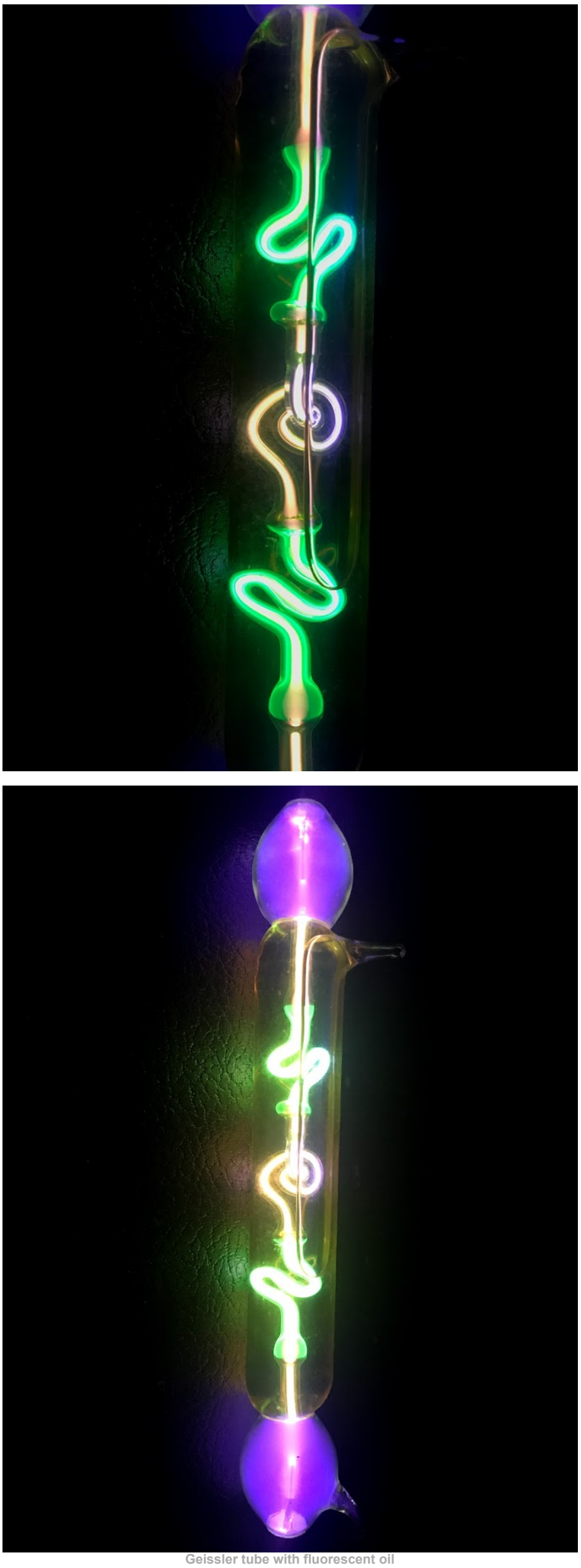


Ornate Geissler Tube



Neon bulb

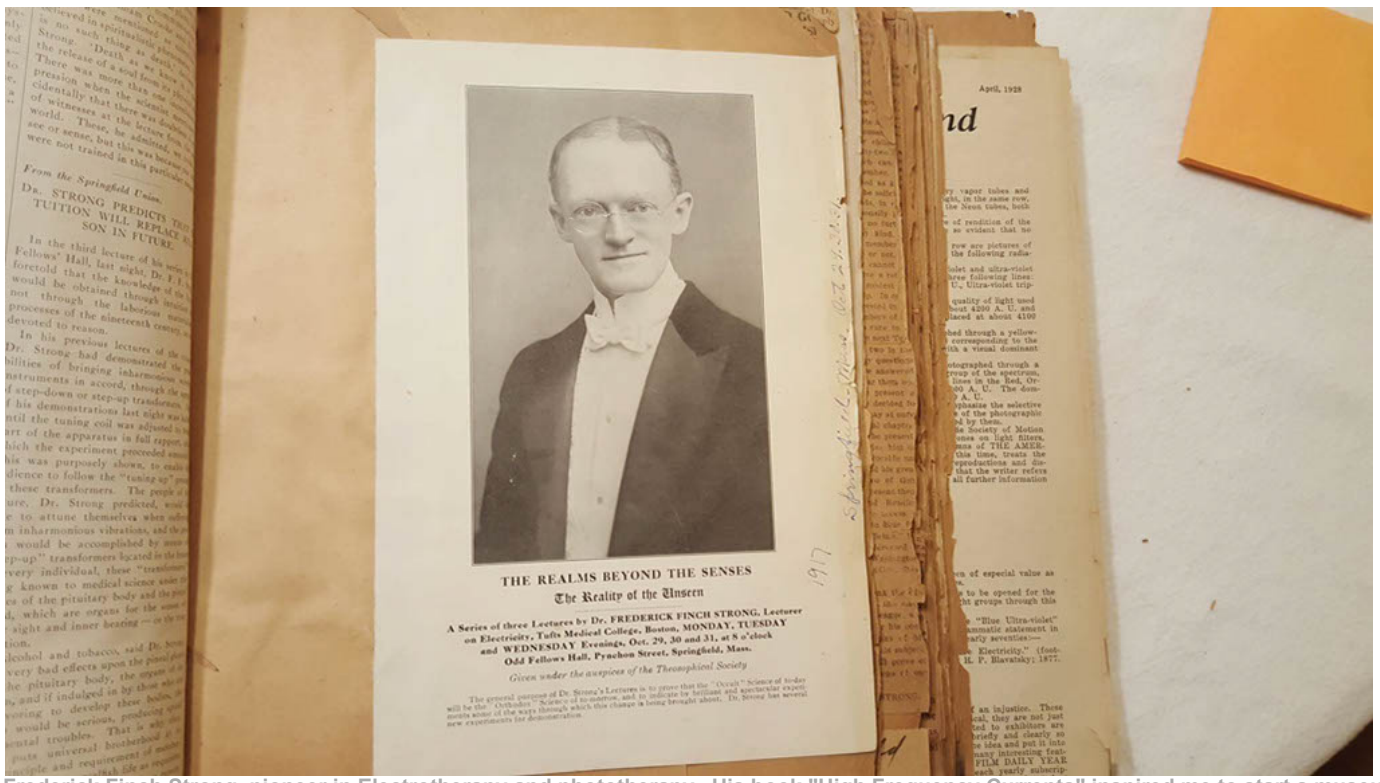
Beautiful Geissler Tube with Uranium Oxide Glass



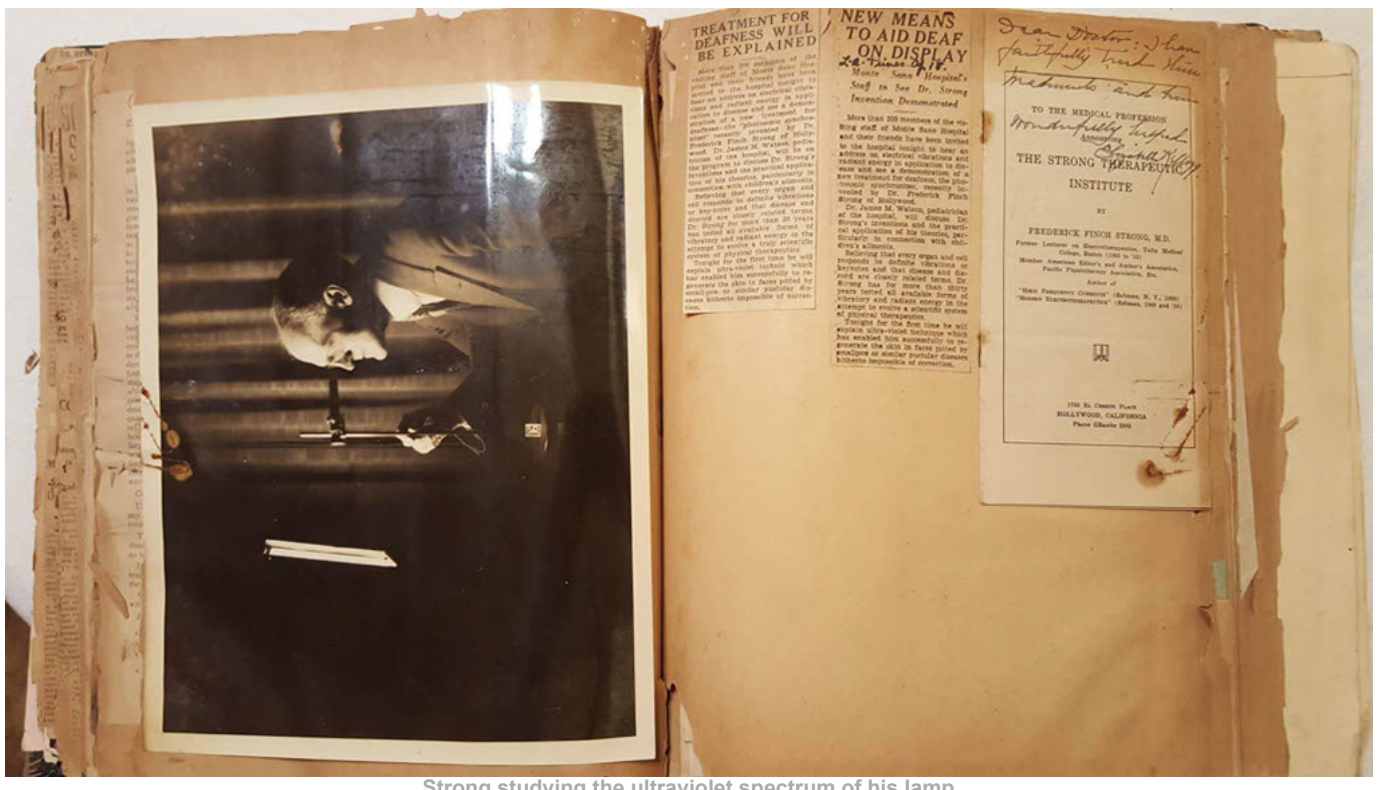
Geissler tube with fluorescent oil

Catherine's Wheel Geissler Tube

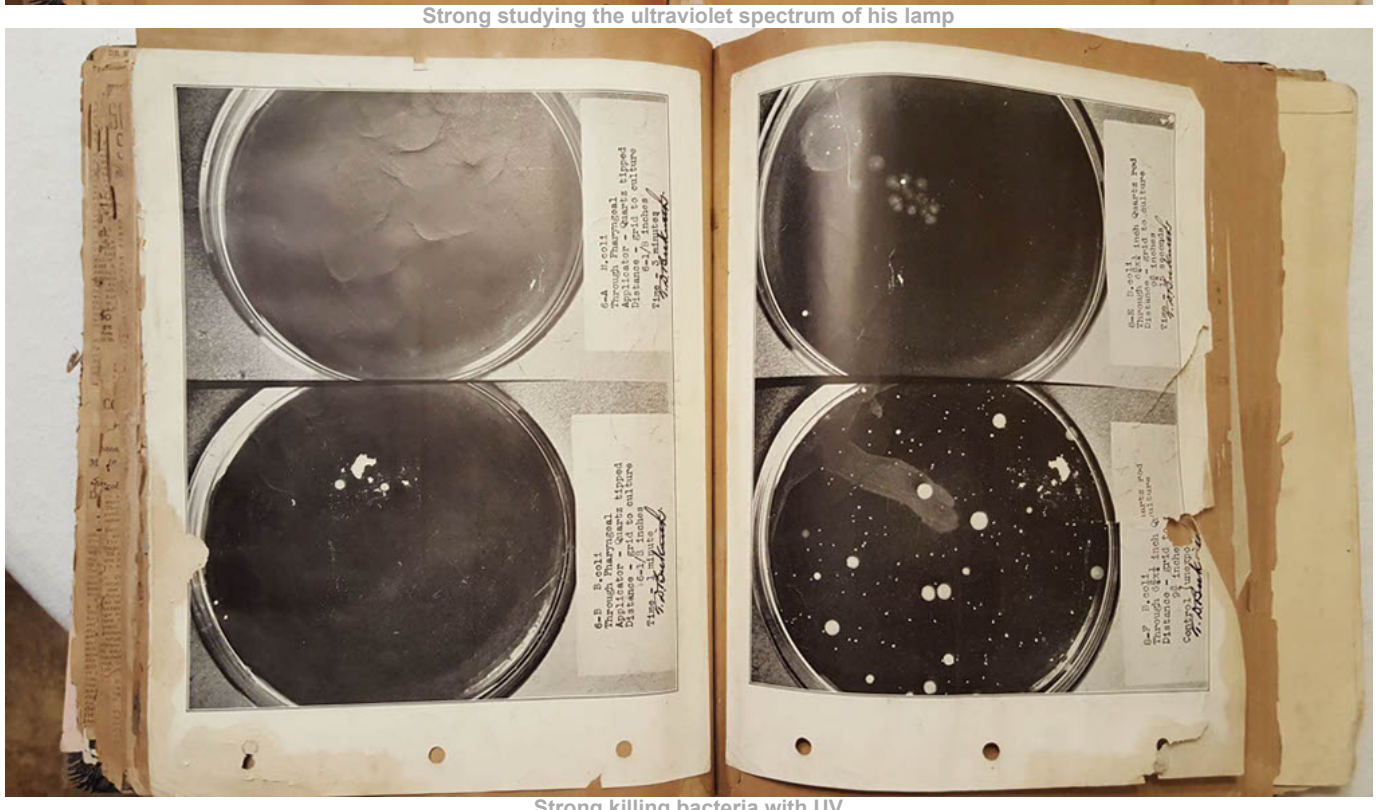
Jeff Behary, Frank Jones, and John "Grizzy". Endless thanks to both colleagues, as well as Daniel Cuscela, Kelly McJilton, Lutz Neumann, and many others for helping make this quest possible.
And to RGF Environmental Group for keeping the better parts of my collection alive and well and on display.



Dr. Frederick Finch Strong, pioneer in Electrotherapy and phototherapy. His book "High Frequency Currents" inspired me to start a museum.

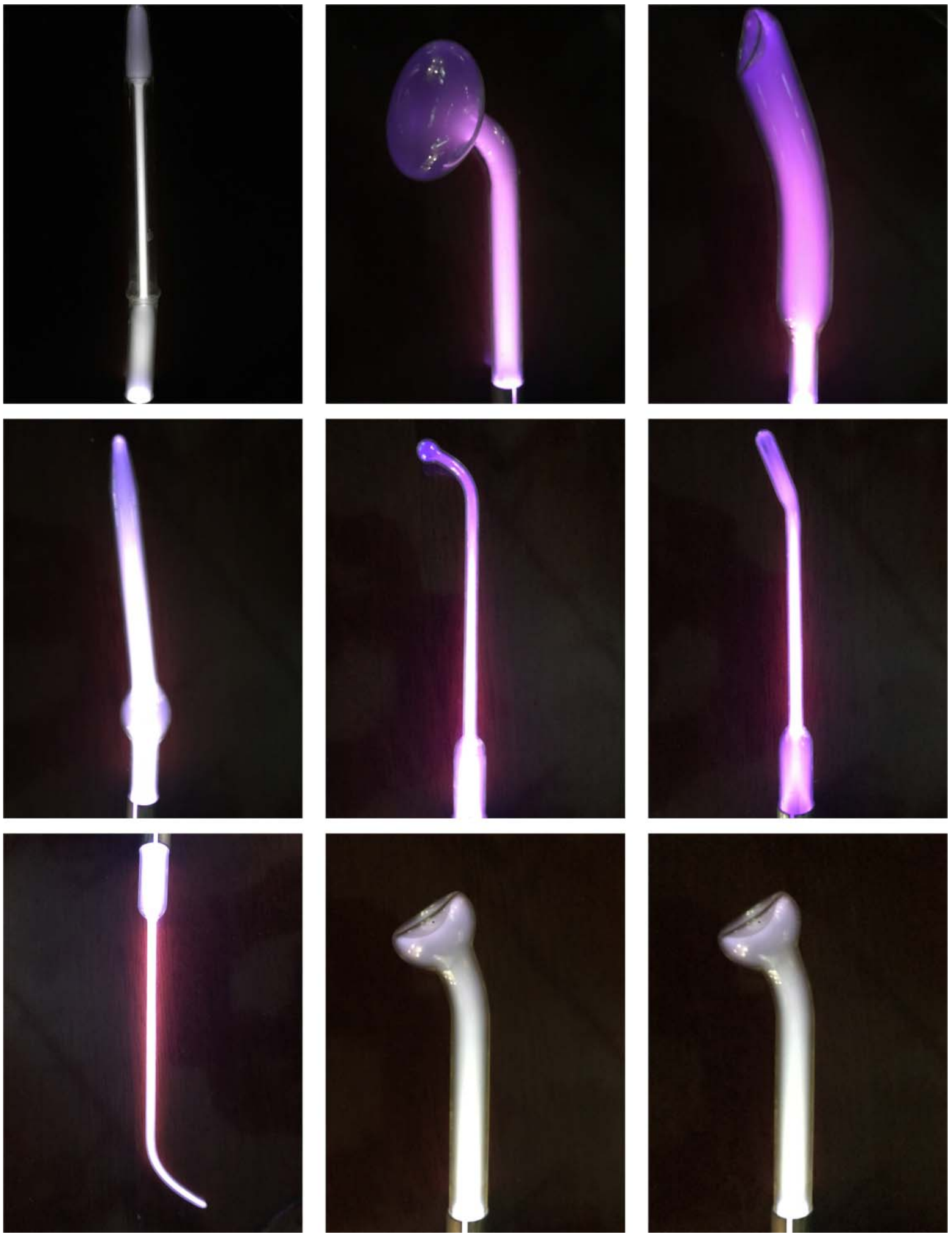


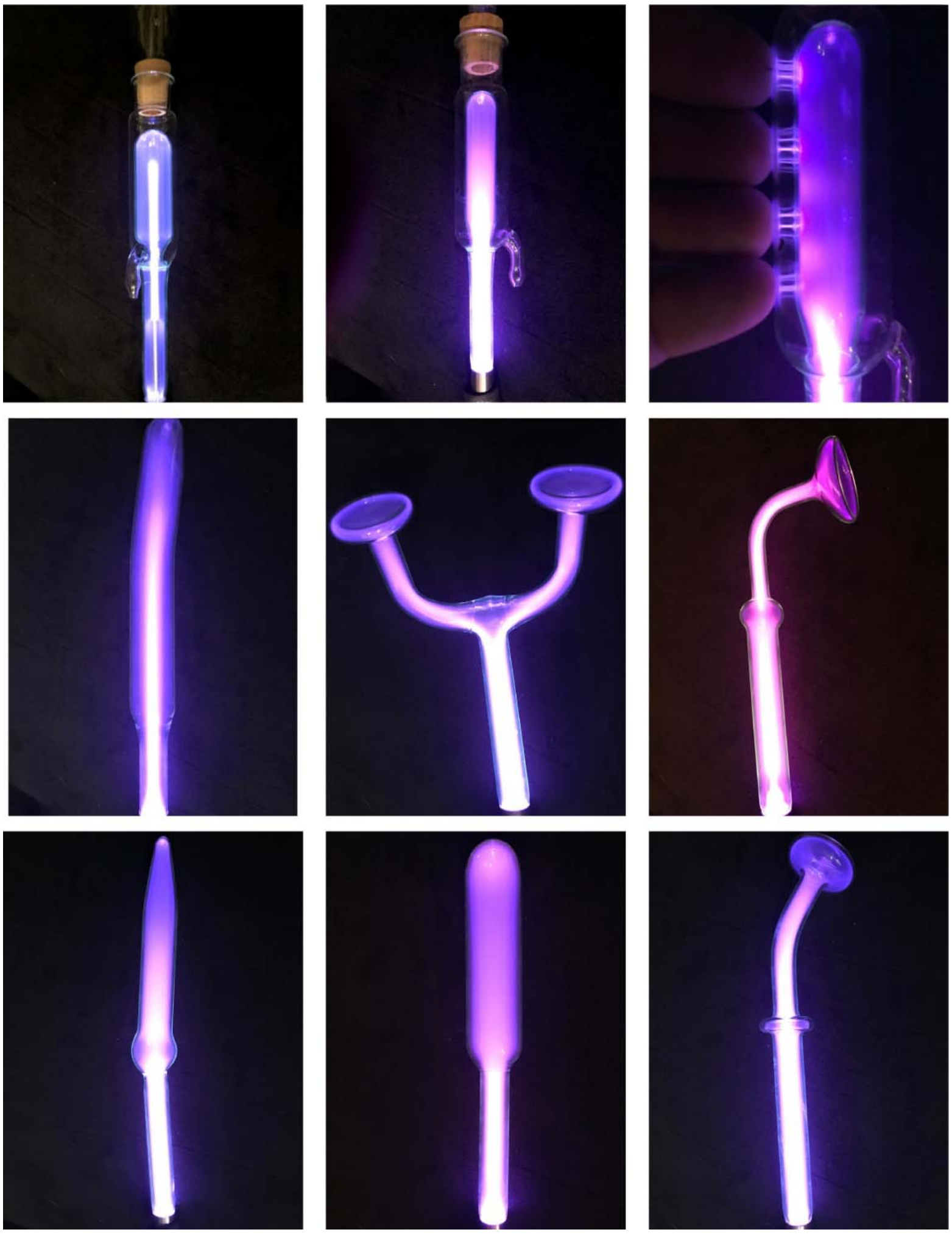
Strong studying the ultraviolet spectrum of his lamp

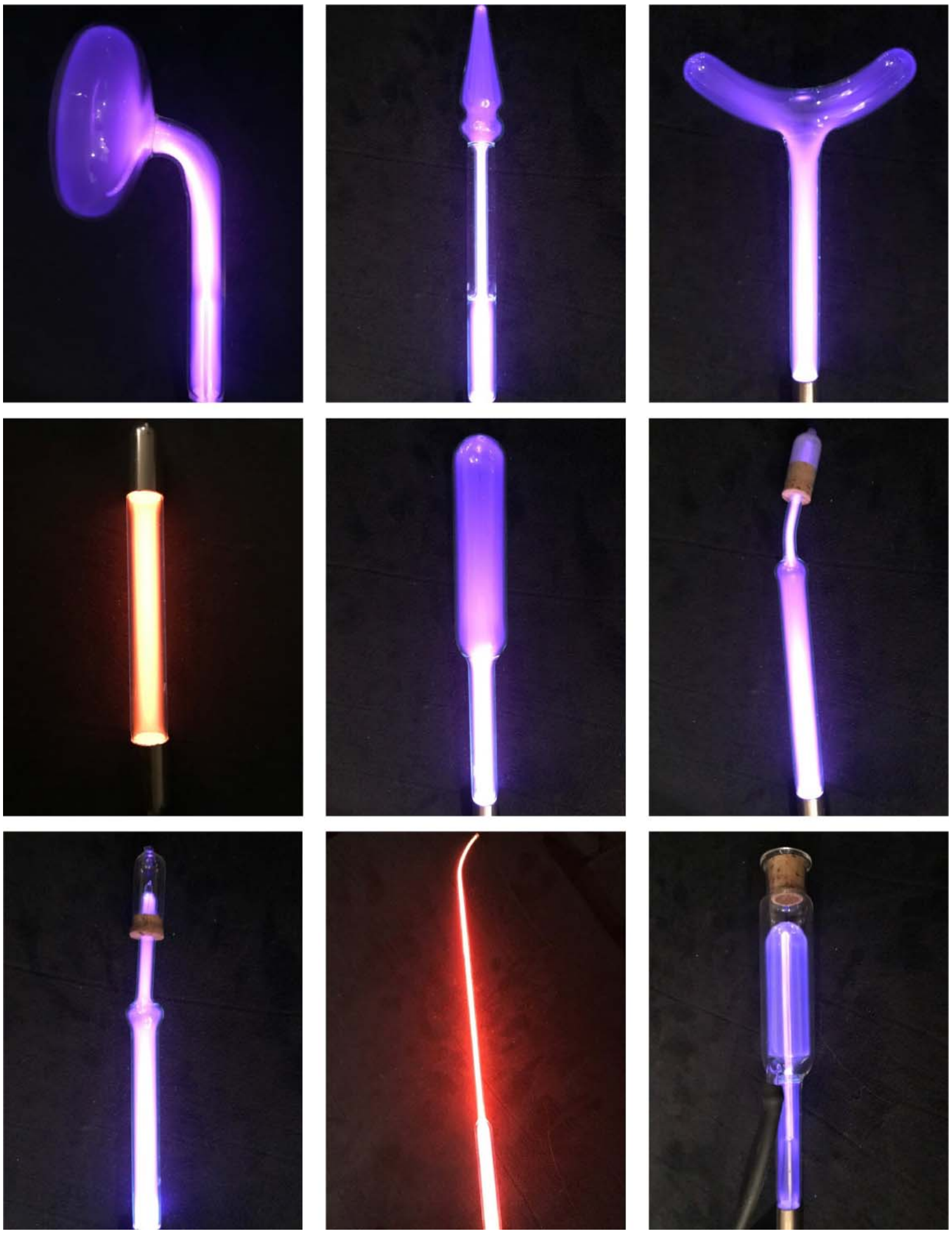


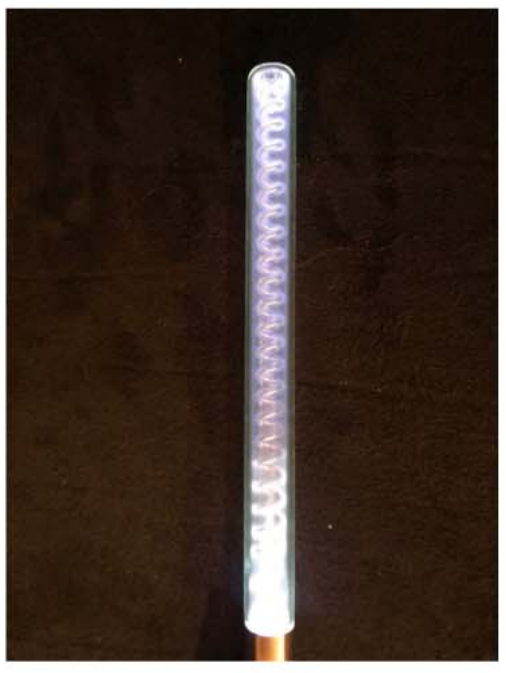
Strong killing bacteria with UV

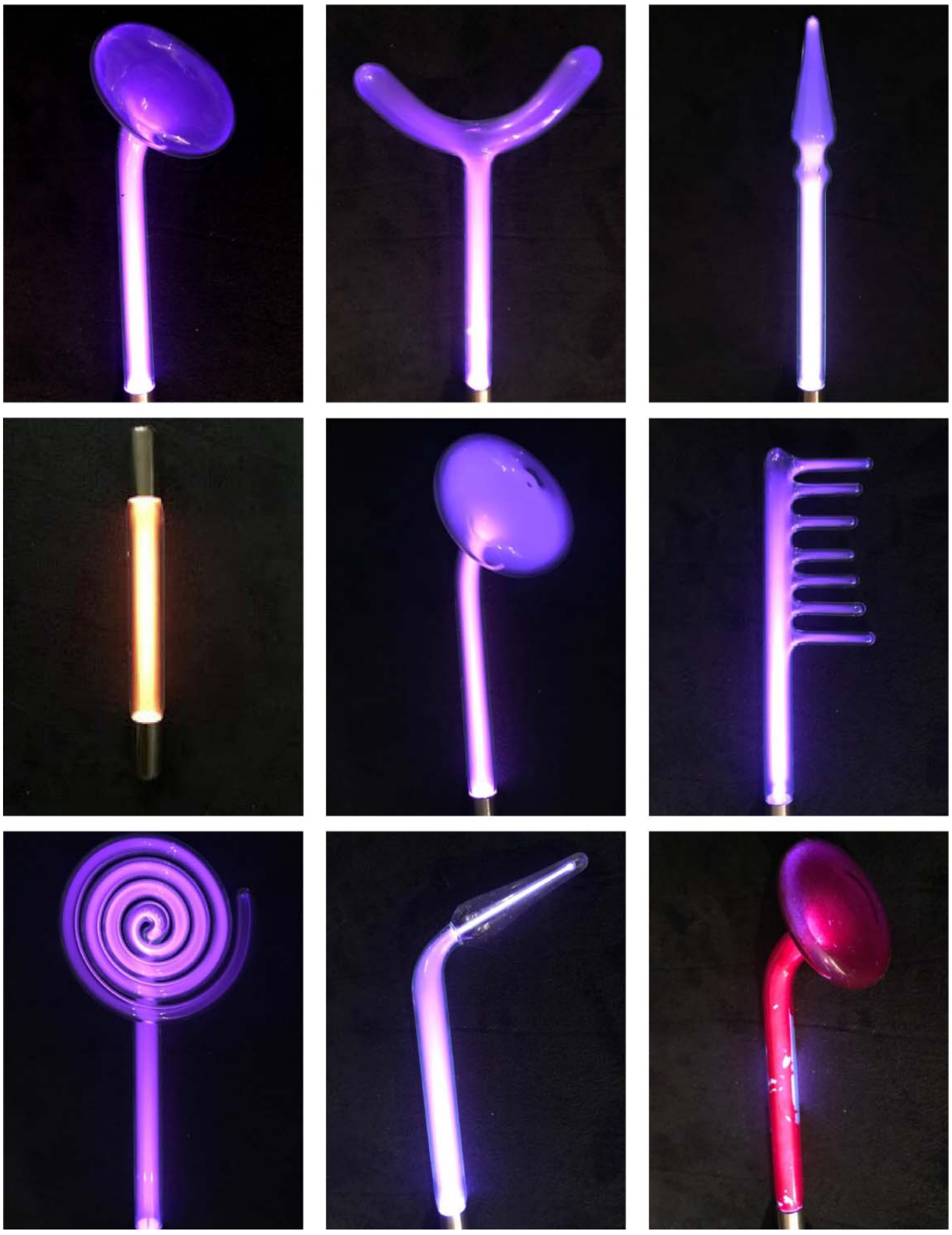
Strong was a pioneer of high frequency coils for therapy and worked with Earle Ovington and Thomas Burton Kinraide.
Strong also invented the vacuum electrode in 1896. The following images are of vacuum electrodes made around the world.

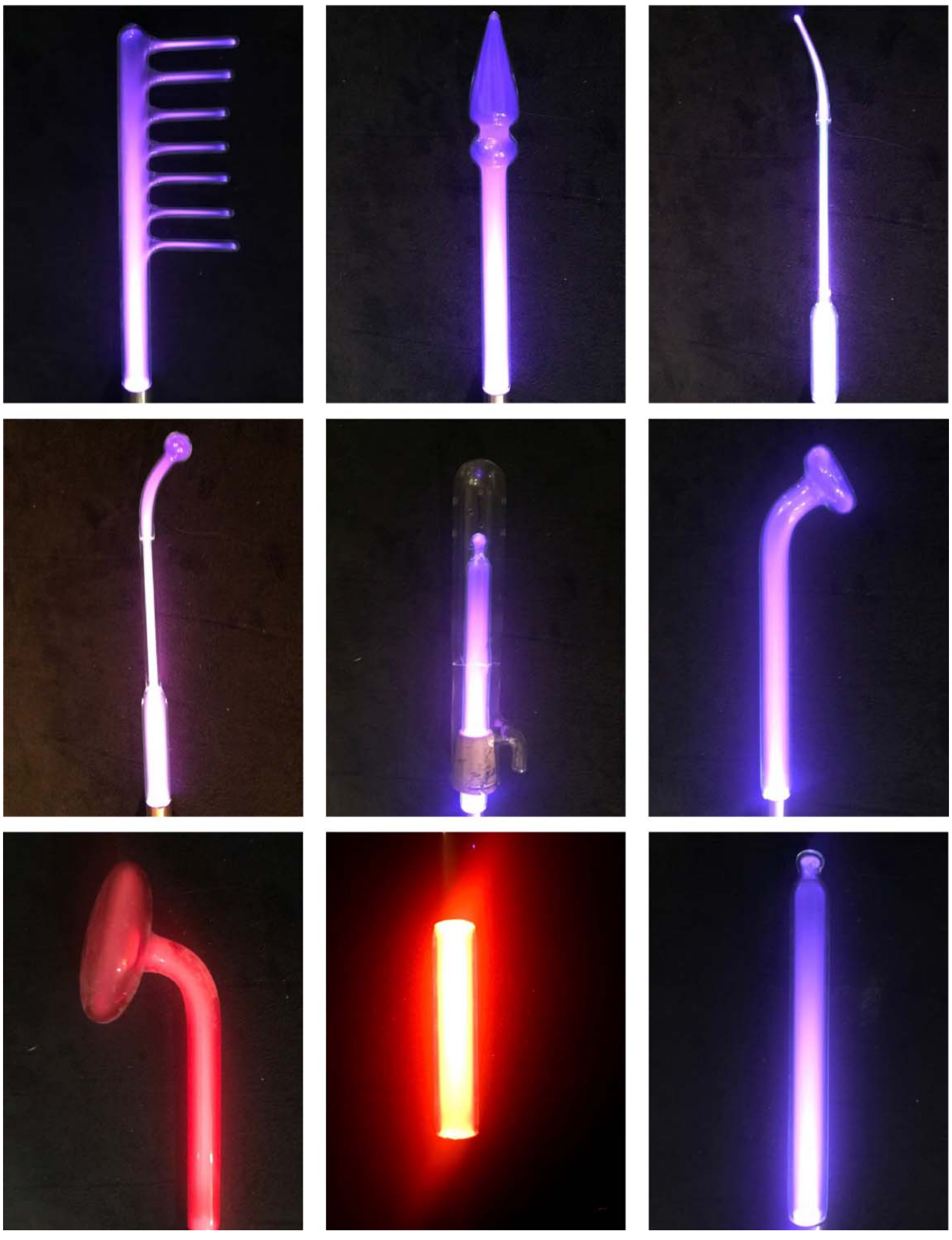


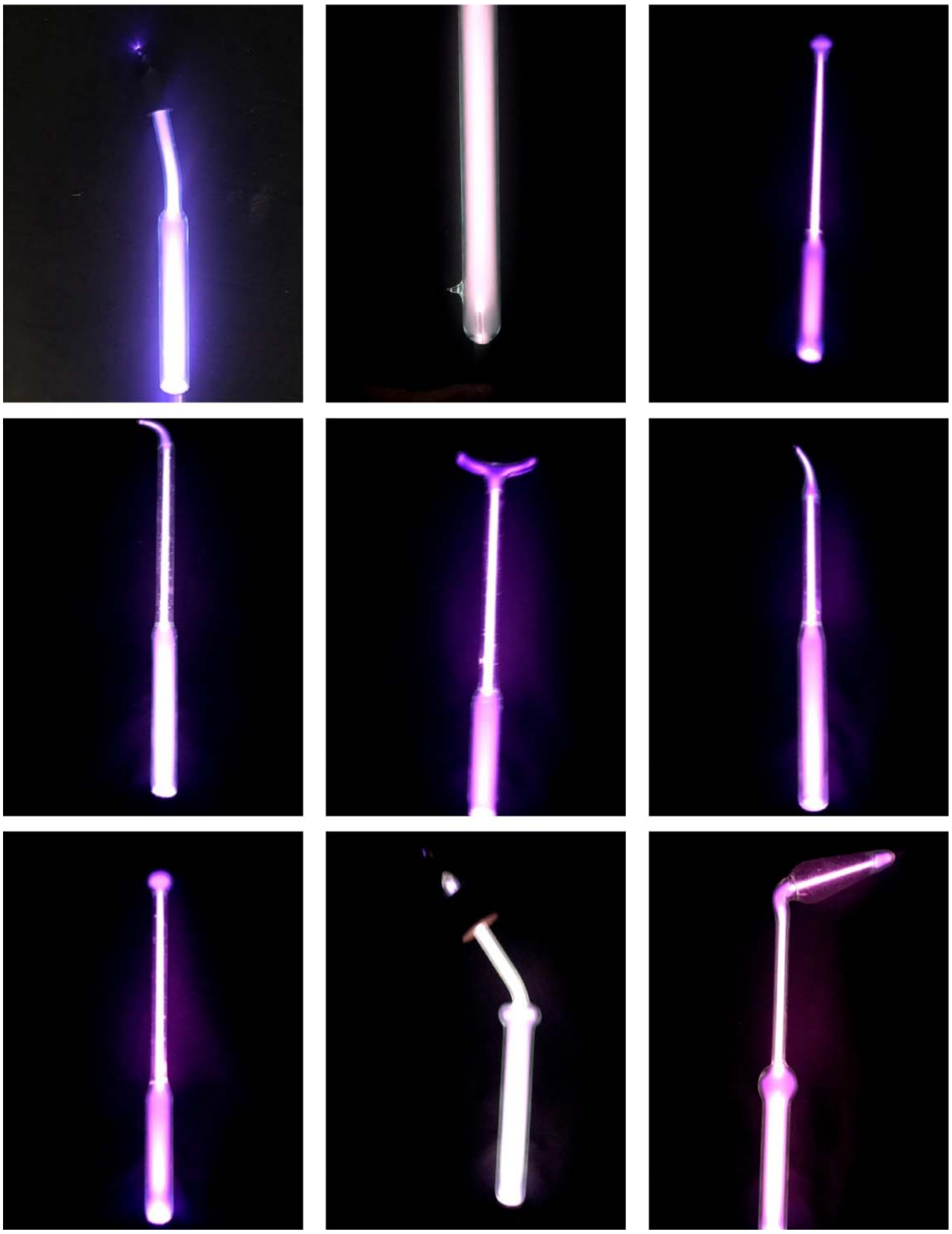


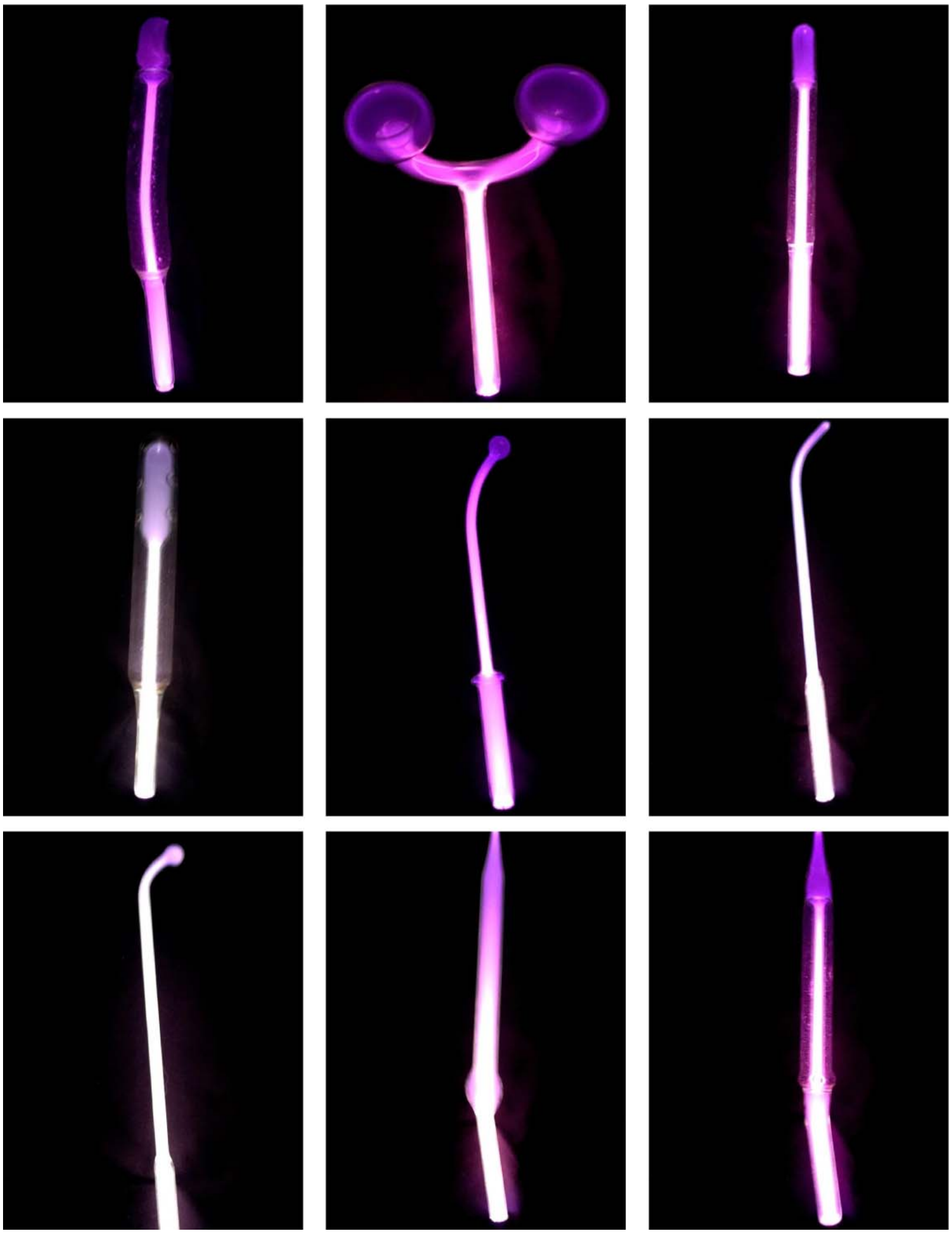












For more information, please visit my museum and archive:

www.electrotherapymuseum.com

http://www.electrotherapymuseum.com/Museum19001930_Crookes.htm - Electrotherapy Museum - Crookes, Geissler and X-Ray Tubes

http://www.electrotherapymuseum.com/Museum19001930_XRay.htm - Electrotherapy Museum - X-Rays

http://www.electrotherapymuseum.com/MuseumVioletRays.htm - Electrotherapy Museum - Violet Ray Machines

http://www.electrotherapymuseum.com/Museum18001900_CarbonArc.htm - Electrotherapy Museum - Carbon Arc Lamps, Ultraviolet Lamps, and Phototherapy

https://archive.org/details/ffs_20191109 - Dr. Frederick Finch Strong Personal Scrapbook and Archive - 870 pgs

https://archive.org/details/QuestForKinraide5026pgs - In Quest of Kinraide - 5020 pages

https://archive.org/details/VacuumDischargeTubesLowResolution/mode/2up - Electrical Discharges in a vacuum: A selection of Crookes, Geissler, Mercury Vapour, and X-Ray Tubes

https://archive.org/details/UVspectrum - Insights Into The Spectral Outputs of UV Sources Manufactured from 1800-1900s

https://archive.org/details/gasdischargetubespectrums - Visible Spectrums of Gas Discharge Tubes

https://archive.org/details/hanovialamps - Hanovia Lamps, Various Booklets

https://archive.org/details/thequartzlamp - The Quartz Lamp

https://archive.org/details/ozone_schoenbein - Schönbein - On Ozone

https://archive.org/details/sunlamps - Misc. UV booklets

https://archive.org/details/Burdick - Burdick Ultraviolet Booklets

https://archive.org/details/hgfischeruvir/page/n3/mode/2up - Ultraviolet Blueprints from H. G. Fischer Company

https://archive.org/details/ultravioletreference1/page/n22/mode/2up - Ultraviolet References

https://archive.org/details/Heliotherapy/page/n1/mode/2up - Heliotherapy with Quartz Light

https://archive.org/details/technique-handbook-on-quartz-light-therapy/page/n2/mode/2up - Technique Handbook On Quartz Light Therapy

https://archive.org/details/therapeutic-effects-of-ultraviolet/mode/2up - Therapeutic Effects of Ultraviolet Light

Home machine shop to replicate and repair apparatus...

Bedroom library mainly dedicated to UV and Spectroscopy

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